

**FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.**

(WITH SUPPLEMENT) { PRICE ..... FIVEPENCE.  
PER ANNUM. BY POST. £1 4s

**CAPTAIN WM. EDDY, PENDEEN, PENZANCE,** having lately returned from **THE EMMA SILVER MINE, SALT LAKE CITY, UTAH,** will be glad to give information respecting that property, and also on **THE REDINGTON QUICKSILVER MINE, KNOXVILLE, LAKE**



# THE NEW TREVEDDIE TIN MINING COMPANY (LIMITED).

Registered under the Companies Acts of 1862 and 1867, whereby the liability of each member is strictly limited to the amount of his shares.

Capital, £10,000 in 5000 shares of £2 each.

10s. on application, 10s. on allotment, further calls if needed at intervals of three months, and not to exceed 5s. per share.

If no allotment be made the deposit will be returned in full.

Share warrants issued to bearer for shares paid up in full.

DIRECTORS.

STEPHEN BURSTALL, Esq., Oriental Club, Hanover-square.  
JAMES DAVIS, Esq., No. 2, Harley-road, West Brompton.  
CHARLES KERR CROUCH, Esq., No. 75, Old Broad-street, E.C.  
HENRY F. WHITEHEAD, Esq., Solicitor, St. Columb, Cornwall.

BANKERS—ALLIANCE BANK (Limited), London and Manchester.

SOLICITORS—Messrs. SHEPPARD and RILEY, 38A, Moorgate-street, E.C.

SECRETARY—H. W. MATHIAS, Esq.

AUDITOR—ADOLPHUS LEIGHTON GRAY, Esq.

OFFICES—46, FINSBURY-CIRCUS, LONDON, E.C.

The object of this company is to purchase the lease of and work a valuable tin mine called the New Treveddie, situated in the parish of Cardinham, one of the best tin districts in the county of Cornwall, and is adjoining the Great Treveddie Mine, one of the most ancient tin mines in Cornwall, which is now making large profits.

The sett is about one mile long on the course of the lodes and half a mile wide, and is fully described in the reports annexed to the prospectus, and being situated on the banks of the River Fowey it can be fully developed by machinery worked by water-power, being one of the most important features in the mining. There are five very large distinct tin lodes, which have been worked on very extensively at the shallow depth of only 7 fms. by the ancient miners, the extent of those workings, and the many old smelting places in close proximity, show that enormous quantities of tin have been obtained near the surface.

A trial shaft has been sunk on the Tremoreland lode a short time since 3 fms. deeper than the former workings, and the lode was found to be 9 feet wide; it was stopped away for some distance, and was worth on an average £10 per fathom at the then low price of tin; at the present price it would be equal to £16 per fathom. The sinking of the shaft, driving the levels, and stopping the backs can all be done at an average of £2 per fathom.

The geological position of this property is all that can be desired, being at the junction of the granite and kyllas. The Tremoreland lode for a very long distance divides the two formations, and will in the opinion of all practical miners who have inspected it prove extraordinary rich in depth.

The only contract entered into is dated 12th October, 1871, and is made between Henry William Mathias, Henry Thompson, Richard Rich, and William Derry of the one part, and James Davis, as trustee on behalf of the company, of the other part, and is the contract for the purchase of the property, and may be seen at the offices of the solicitors of the company.

Prospectuses, reports, and forms of application for shares may be obtained at the offices of the company, and of the bankers and solicitors.

# THE WALREDDON MINING COMPANY (LIMITED).

Incorporated under the Companies Acts, 1862 and 1867, whereby the liability of each member is strictly limited to the amount of his shares.

Capital £15,000, divided into 15,000 Shares of £1 each.

Of which 6000 are fully paid-up at once, and 9000 upon which a deposit of 2s. 6d. per share is to be paid on application and 2s. 6d. on allotment.

No further calls to exceed 2s. 6d. per share, at intervals of not less than three months.

All further liability will then cease, and share warrants to bearer may be issued to holders of ten or more shares, thus making the shares of the company pass from hand to hand like bank notes, without any expense of transfer.

DIRECTORS.

W. T. BRIDGES, Esq., J.P., Barrister-at-Law, Torwood, Torquay.  
WALTER MALCOLM, Esq., 43, Mark-lane, London.  
Lieut.-Colonel C. G. PERCEVAL, 1, Whitehall-gardens, London.  
JAMES DAVIS, Esq., 2, Harley-road, West Brompton.  
C. K. CROUCH, Esq., 75, Old Broad-street, E.C.

SOLICITORS.

CRESSWELL J. TAYLOR, Esq., Torquay.  
Messrs. GRIFFITH and BROWNLOW, Bedford-row, E.C.

SECRETARY—H. W. MATHIAS, Esq.

LOCAL MANAGER—MR. JAMES MURRAY, Torquay.

BANKERS.

WEST OF ENGLAND AND SOUTH WALES DISTRICT BANK, Torquay.  
ALLIANCE BANK, LOTHBURY, E.C., and Manchester.

OFFICES IN LONDON—46, FINSBURY CIRCUS, E.C.  
TORQUAY—VICTORIA PARADE.

PROSPECTUS.

The objects of this company are to purchase, and work with approved modern appliances, the mining grants of three extensive and well-known tin and copper mines, which are situated in the parish of Tavistock, about one mile from Tavistock, in the county of Devon, formerly called "Anderton," "Rix Hill," and "East Crowndale."

The three mines adjoin each other, and occupy one of the best channels of mining ground in the county, extending about a mile from east to west on the course of the lodes, and nearly ½ mile from north to south. These properties are possessed of unusual advantages in respect of good roads, near proximity to Tavistock town and railway station, and abundance of water, having at the eastern portion of the sets a stream of water, included in the grant, adequate for all dressing purposes, and on the west the River Tavy, from which extensive water-power can be obtained.

There are three known rich tin lodes (the middle and north lodes only have been proved), which run nearly east and west through Anderton and Rix Hill, and two copper lodes running parallel to the former through East Crowndale, the same lodes which have been extensively wrought upon in Crowndale Mine, which has produced copper ore of the richest quality, and for many years paid very handsome dividends.

In addition to these, a lead lode, which has not been proved, runs through a part of the property in a north and south direction. The tin lodes have been worked upon to a small extent in the Rix Hill and Anderton Mines by four distinct shafts. In addition to a small one on the north lode, and the levels driven from them; and the copper lodes by two shafts, the deepest sunk 70 fms., and short levels driven in East Crowndale Mine; but in neither case has a proper and miner-like prosecution of the sets been carried to any considerable extent.

The country in which these several lodes have been found is a basin of pan of kyllas or clay-slate, at a short distance from the granite on two sides—a most favourable position for the production of tin in paying quantities. Near the eastern boundary of the set there is a large lochan or cross-course, about 14 fms. in width, crossing the lodes at a bearing of 40° south of east, while the lodes are about 8° north of east, besides which there are two other cross courses further to the west. These may lead to a disturbance of the ground, producing what miners call "slides," but experience has shown that between such disturbances where they have been found to exist large deposits of ore are generally found, and in this case operations have passed through the western slide in some of the levels, and the lode found in settled ground.

At a time when tin was at a little more than one-half its present price the tin lodes were worked upon in two distinct mines by separate companies. Many thousands of tons of ore were expended in sinking shafts to the 90 in Anderton, and to the 60 in Rix Hill, and in driving adits and levels now available for the further development of the mines, and stopping away and raising very considerable quantities of tin; but inefficient and frequently obscure management, accompanied by differences between the adventurers themselves, together with the low market value of tin at that time, led to the closing of most promising undertakings, which, in the opinion of the best practical miners, ought never to have been abandoned. (It may be taken as evidence of the known richness of these mines at the time they were stopped to state that the tributers engaged on the mines offered at their own costs both Anderton and Rix Hill, and pay over to the respective companies 10s. out of every 30s. worth of tin raised.) The same untoward differences led to the cessation of the copper mine when copper was much more valuable than at present, and although it was then actually raising very considerable quantities of copper ore of the richest quality. The tin lodes are from 1 to 4 or 5 feet wide, and known to yield rich work for tin, varying in places from 100 to 150 lbs. to the ton of lode stuff (and even more than that), and it is believed by those best acquainted with the mines that very considerable quantities of tin are laid open ready to come away as soon as the water is out and the shafts and levels are cleared up, and large profits on working are confidently looked for.

It is now proposed to begin, in the exercise of a judicious economy, with the erection of a 36 to 40-horse steam engine, to fork the water, draw the tin-stuff, and to drive about 24 heads of stamps, because this power can during eight months of the year be supplemented by a water-wheel, propelled by the stream at the lower or eastern part of the sets, where the dressing operations for both mines can all be performed. For the present it is intended to confine operations wholly to the tin lodes in the sets, and as great amount of dead work has already been done on them, it is thought that the present nominal capital will be amply sufficient to develop them, and to admit of the company in general meeting deciding at a future period upon working the other parts of the sets, or otherwise extending operations as may be finally determined upon.

The sets are held for terms of 21 years on the following favourable terms (from Midsummer, 1870), from the Right Hon. the Earl of Devon, at 1-20th dues for all minerals, and from July 25, 1871, from Mr. J. R. Wilcock, at 1-24th for all minerals, and after paying profits 1-20th free from water charges.

The contract for the purchase of the sets bears date the 25th March, 1871, and is made and entered into between James Murray and Jacob Legassick, the vendors, of the one part, and William Robert George, as trustee for the Walreddon Mining Company (Limited), of the other part, whereby the property is secured to the company.

Prospectuses, reports, and forms of application may be had of the bankers, solicitors, and secretary.

MR. W. WHITE, ASSAYER AND CONSULTING CHEMIST, in announcing the REMOVAL of his LABORATORY AND ASSAY OFFICE from Crown-court to much more commodious premises, 25, FINSBURY PLACE, near FINSBURY CIRCUS, hopes to RETAIN the CONFIDENCE hitherto reposed in him.

Assaying taught. Lectures to Schools and Public Institutions.

THE NEWCASTLE CHRONICLE AND NORTHERN COUNTIES ADVERTISER. (ESTABLISHED 1764.)  
THE DAILY CHRONICLE AND NORTHERN COUNTIES ADVERTISER  
Office, 43, Grey-street, Newcastle-upon-Tyne; 50, Howard-street North Shields; 129, High-street, Sunderland.

# THE COLONIAL TRUSTS CORPORATION (LIMITED).

ISSUE OF 10,000 SHARES IN

Incorporated under the Companies Acts, 1862 and 1867.

Authorised capital £300,000, with power to increase.

First issue £150,000, in 30,000 shares of £5 each, of which 15,177 shares, with £1 each paid thereon, are reserved for the shareholders of the Colonial Securities Company (Limited), and 14,823 have been privately taken up, leaving 10,000 shares now to be subscribed for, on which it is proposed to call up £1 per share, payable as follows: 10s. on application, and 10s. on 15th January, 1872.

DIRECTORS.

The Right Hon. VISCOUNT BURY, K.C.M.G., M.P.  
HUGH E. MONTGOMERIE, Esq., 17, Gracechurch-street.  
JAMES W. MONTGOMERIE, Esq., 47, Cornhill-buildings.  
ALFRED R. ROCHIE, Esq., 31, Palmerston-buildings.  
HENRY SEWELL, Esq., 4, Copthall-court.  
(With power to add to their number.)

SOLICITORS—Messrs. FRESHFIELDS.

BANKERS—Messrs. GLYN, MILLS, CURRIE, and CO.

SECRETARY—E. J. BURGESS, Esq.

31, PALMERSTON BUILDINGS, OLD BROAD STREET, E.C.

The Colonial Trusts Corporation (Limited) has been established for the purpose of making advances upon first mortgages of freehold estates in various colonies, either for the corporation direct, or on behalf of other parties for whom it may act as agent, of negotiating Government and other securities, and generally for the transaction of business in connection with the British Colonies or elsewhere.

It is proposed to take over the business of the Colonial Securities Company, Limited (which has been in active operation since 1864), on terms which will enable the corporation, out of the profits of current transactions, to pay a dividend of 5 per cent. per annum, from the commencement of its business.

By this arrangement the corporation will at once become possessed of a good substantial business, secure an influential connection, obtain the services in England and the colonies of an experienced staff, and thus occupy a favourable position for the employment of additional capital in operations which have been proved to be of a safe and profitable character.

It is intended to take over the business of the Colonial Securities Company (Limited), as on the 1st January, 1872, up to which period interest at the rate of 8 per cent. per annum will be paid on deposits received to account of shares in this corporation.

Power is taken in the Articles of Association to accept from shareholders payment in full on their shares, and the directors will be prepared to negotiate, to a limited extent, with those who may desire to do so, the shareholders making such payment to receive interest, at an agreed rate, on the portion remaining unpaid.

The Memorandum and Articles of Association, together with the conditional agreement for the transfer, may be seen at the offices of the corporation.

Applications for shares may be made, on the annexed form, either to the bankers, Messrs. Glyn, Mills, Currie and Co., or to the secretary, at No. 31 Palmerston-buildings, Old Broad Street, E.C.—November, 1871.

## FORM OF APPLICATION FOR SHARES.

To the Directors of the Colonial Trusts Corporation (Limited).

GENTLEMEN.—Having paid to your bankers the sum of £ , being a deposit of 10s. per share, I beg to apply for shares of £5 in the above-named company, and I agree to accept the same, or any less number that you may allot to me, and I request you to enter my name on the Register of Members of the company in respect of such shares.

Signature .....  
Name in full .....  
Address .....  
Date ..... Profession or business (if any) .....

## NEW COURTENAY MINING COMPANY,

In 1000 shares of £4 each.

ON THE COST-BOOK PRINCIPLE.

MR. JEHU HITCHINS invites subscriptions for a portion of the shares in this company. From a long and perfect knowledge of the mine he can confidently recommend it as a speculation of no ordinary character.

The mine is held on lease from the Earl of Devon, for 21 years from July 2, 1861, at 1-15th dues.

Some thousands of pounds have been expended in developing it at shallow levels, and 340 tons of copper ore have been raised and sold, for £1881 17s. 8d. In one level a course of ore has been gone over for 32 fathoms long, worth £12 per fathom, and richest in the bottom. To work it deeper, however, it became necessary to erect machinery (for which there is ample water-power), and the insolvency of shareholders, owing to heavy arrears of calls, rendered this impossible in the old company.

The new company, now recommended (a great number of the shares in which one of the lodes between 300 and 400 fms. is to be in 1000 shares, of £4 each; and of the £4000 thus raised, £2000 is to be paid for the mine leases, &c., and £2000 to be working capital, which is considered sufficient to bring the mine into a productive and profitable state.

No commission is charged, nor is there any promotion money whatever.

A committee of management will be formed from the first meeting of shareholders.

The following report is from the manager of the Prince of Wales:—

Tavistock, Devon, Oct. 4.—Agreeable with your request, I beg to hand you my report on the above mine, which is situated in the parish of Tavistock, Devon. The sett is about 600 fms. long from east to west, and 400 fms. wide, containing several east and west and one north and south lodes. An adit level is taken up within about 60 fms. of the eastern boundary, and driven west on a course of the drifve the lode shows a very promising appearance, varying in size from 1 ft. to 5 ft. wide, and yielded about £300 worth of copper ore. At the western extremity of this level a cross-cut is driven some 20 fms. north, and is within a short distance of a lode that has been very extensively worked on at surface by the ancients, the bottom of which has never been seen by anyone now living. Near the mouth of the adit a shaft 12 ft. long by 6 ft. wide has been sunk 27 fms. perpendicular, at the bottom of which a cross-cut is driven north 11 fms., and the east and west lode intersected, and driven west on a course of the drifve, where many tons of the latter were raised and sent to market. In the western end the lode is 3 ft. wide, worth 1 ton of copper ore per fathom, the produce of the last 3 fms. being now on the mine for inspection. This point is near where the best lode was driven through in the adit, and about 18 fms. below where the tributers sunk in the bottom of that level, and broke several tons of copper ore. But in consequence of a great influx of water it was abandoned. In this level, about 30 fms. east of the cross-cut from shaft, a north and south lode was met with, and driven on north 11 fms., the first 8 fathoms being worth full £12 per fathom for copper; it is also driven south about 40 fms., the first 32 fms. being worth £10, and the backs taken away about 3 fms. high, the whole length of the drifve having yielded full £1600 worth of copper ore. The bottom of this level, now standing all whole, is quite as good as any of the ground taken away. For the further prosecution of the mine, as there is a never-failing stream of water for pumping, drawing, and dressing purposes, I would recommend (say) a 25-ft. diameter wheel, from 6 to 8 ft. above, being geared with rods, bobs, and drawing-machinery connected, also 40 fms. of 8 in. or 9 in. pitwork, as may be bought cheapest. To purchase and erect the above, make good the lease, take out ground and build the wheel pit, sink the shaft (say) 15 fathoms, cut pit at the bottom, drive cross-cut north to the lode (say, 5 fathoms), drive west on its course from 25 to 30 fathoms, to intersect north and south lode; should this be found productive, which from its appearance in the upper level there is every reason to expect, then drive north and south on its course, to open out ore ground. If this work is prosecuted with vigour, and the machinery bought at the cheapest rate, I have no doubt it might be done for £1500, and the best results will follow.

J. GIFFORD, Prince of Wales Mine.

As there are only a few shares to be disposed of, Mr. HITCHINS invites early applications to him, at St. Michael's House, Cornhill, London.

MESSRS. LISCORBE AND CO., 39, SOUTH CASTLE STREET, LIVERPOOL, Beg to inform their CLIENTS and the PUBLIC that they are PREPARED to DO BUSINESS IN ALL CLASSES OF MINING SHARES—English, Foreign, and Colonial—at the closest market prices.

A Mining Engineer of great experience having recently joined the firm, they are in a position to make thorough inspections and surveys, and give first-class reports upon all metalliferous mines throughout the world. They are also ready to provide capital to any moderate extent for working bona fide mineral properties, no matter where situated.

Messrs. LISCORBE and Co. have for sale at this present time shares in several most highly promising progressive mines, which are certain shortly to pay large dividends upon a very small outlay.

Full particulars will be forwarded on application to bona fide investors.

MESSRS. CAMERON AND CO., SHAREBROKERS, CHESTER, having a thorough knowledge of the Lead Mining Districts in Wales, are ENABLED to FURNISH the BEST and MOST RELIABLE INFORMATION on all WELSH LEAD MINES.

Messrs. CAMERON and Co. have FOR SALE a limited number of fully paid shares at £3 10s. each in a valuable LEAD MINE, which they strongly recommend for a great advance in price. The property is situated in a well-known and most productive district for lead. The shares are now selling at a premium, and will in a few months command a high price. Investors will do well by making an immediate purchase. Particulars forwarded on application.

WANTED, a good HEMATITE IRON MINE. Cumberland district preferred. Also, an IRON MANGANESE SET. State price and particulars.

OFFICES: BRIDGE STREET CHAMBERS, CHESTER.

MR. T. W. GREENFIELD, PUBLIC ACCOUNTANT, AUDITOR, STOCK AND SHARE BROKER, Sales and Purchases effected in British and Foreign Stocks, Funds, Railway Debentures and Preference Stock, Bank, Gas, and Mining Shares. FINE HILL TIN MINE specially recommended.

MESSRS. W. BRUNTON AND CO., SAFETY FUSE MANUFACTURERS, REDBUTE, CORNWALL; and BRYMBO, NEAR WREXHAM.

## Registration of New Companies.

The following joint-stock companies have been registered:—

GITANA LEAD MINING AND SMELTING COMPANY (Limited).—Capital 50,000, in 500 shares of 100s. each. This is a mining, &c., company, for carrying on operations in Spain. The subscribers are: J. B. McLean, M.P., 2, Park-street, Westminster, 20 shares; J. Fowler, 2, Queen's-square-place, Westminster, 20; Edward Woods, 3, Storey's gate, Westminster, 20; R. Kitchin, 4, Parliament-street, 10; James Sopwith, jun., 103, Victoria-street, 5; H. Op- penheim, 15, Park-lane, 10; E. von Erlanger, 45, Lothbury, 20.

ANGLO-AMERICAN OYSTER COMPANY (Limited).—Capital 50,000, in 25,000 shares of 2s. each. This company proposes to maintain oyster fisheries in England and America, and to deal in oysters and fish. The promoters are: E. Coleman, 85, Gracechurch-street; W. F. Gordon, 7, Welbeck-street; J. S. C. Kenneek, Lloyd's, E.C.; Leonard Sedgwick, Junior Carlton Club; E. Schubert, 4, Westminster Chambers; W. Edwards, Beckenham; and G. Farrar, The Pagoda, Blackheath, each of whom take 50 shares.

COLONIAL TRUSTS CORPORATION (Limited).—Capital, 300,000, in 60,000 shares of 5s. each. This company is established to take off and carry on the business of an existing concern—the Colonial Securities Company (Limited), formed in 1864. This business is to make advances upon first mortgages of freehold estates in various colonies, to negotiate Government and other securities, and generally to transact business for and with the colonies. The subscribers are: Viscount Bury, M.P., 65, Princes-gate, 200 shares; J. Browne, J.P., United Universities Club, 200; H. E. Montgomery, 17, Gracechurch-street, 200; J. W. Muttellbury, 47, Cornhill, 200; Henry Sewell, 14, Copthall-court, 200; A. R. Roche, 31, Palmerston-buildings, 200; P. Selby, 71, Princes-gate, 200; W. Stephens, Milton, Gravesend, 200.

MOUNT DALBY SILVER-LEAD MINING COMPANY (Limited).—Capital, 25,000, in as many shares of 10s. each. This is a new company for work-mine at Mount Dalby, Patrick, Isle of Man, and is started by gentlemen in the North of England. The subscribers (who take up ten shares each) are: C. Dutton, 44, Stockport-road, Manchester; J. H. Lane, 14, Wilson-street, Hardworth, Manchester; J. Graves, 1, Wellington-place, Longsight, Manchester; A. C. Leell, 6, Fenchurch-street, Manchester; J. Rohan, Manchester; F. Hope, Rusholme-road, Manchester; W. Armstrong, Sale, Cheshire.

ALL-Y-CRIB SILVER-LEAD MINING COMPANY (Limited).—Capital 40,000, in 20,000 shares of 2s. each. To lease and work mines at Tal-y-bont, in Cardiganshire, is the business of this joint-stock association. The promoters are: James Collins, 8, Lorne-terrace, Stoke Newington; George H. Hutchinson, 35, St. Mary's-square; T. J. Burlaw, 30, Alfred-street, Barnsbury; W. R. Menest, 19, Great St. Helen's; Frederick Clark, High-street, Tottenham; J. Neale, 43, High-street, Ramsgate; Alfred B. Bumpus, 11, Chippenham-road, Harrow-road. These each take one share.

CHAMPION GOLD AND SILVER MINES COMPANY OF COLORADO (Limited). Capital 75,000, in 7500 shares of 10s. each. The objects of this company are to purchase and work the "California" and "Champion" Mines, in Colorado, U.S.A. The directors are: P. Callan, M.P., Reform Club; Joseph Fr. Gresham House; William Hamilton, Glasgow and Manchester; James Kenzie, C.B.; Charles Reynolds; and Capt. T. H. Lowe, C.E., Idaho, Colorado.

I. X. L. GOLD AND SILVER MINING COMPANY (Limited).—Capital 10,000, in 20,000 shares of 5s. each. This company is formed to acquire and work the celebrated I. X. L. Gold and Silver Mines, in Silver Mountain District, California. The directors are: Viscount Ranelagh, Carlton Club; Sir Lawrence Palk, M.P., Haldon House, Devon; Major-General Charles Campbell, of Kinloch, N.B.; Col. Augustus Meyrick, 54, Park-street, Grosvenor-square, W.; F. Heathcote, Arthur's Club; Henry Syme, 15, George-street, Hanover-square.

## Meetings of Mining Companies.

### SILVER PLUME MINING COMPANY.

The first general meeting of shareholders was held at the offices, Winchester-street, on Tuesday, Dr. WADHAM in the chair.

MR. ORCHARD read the notice convening the meeting.

The CHAIRMAN said the present meeting was held in pursuance of the Companies' Act, which provided that the first general meeting should be held within four months of registration; therefore the only actual business to transact was to receive the retirement of the directors; and, if it were thought proper, re-elect them, and also to appoint an auditor. The directors, however, had thought it their duty to submit to the shareholders as much information about the mine as they possessed. Possession was taken in July, therefore they had had it in their hands only about three months. During that time a considerable expenditure had been incurred in the erection of works and the obtaining access to the stopes to enable them to extract the ore. On account of the difficulty of getting labour, as much ore had not been brought to surface as could have been wished, but in a letter dated Oct. 23 the manager reports that "the mine is full of good miners; therefore there is every prospect of everything going on satisfactorily." Already one parcel of ore of 9½ tons had been shipped, which it was estimated would be worth 300s. per ton, but it had absolutely yielded 293 ozs. of silver and 16 per cent. of lead, realising 72½ 18s. 11d. per ton, which was considerably more than the amount calculated by the manager. With that parcel there came a bag of picked samples, which upon assay by Messrs. Johnson and Matthey yielded an average of 3054 ozs. of silver and 60 per cent. of lead per ton. Mr. Ramage, of the London and Colorado Company, took a specimen which he had assayed, and it was proved to contain 2188 ozs. of silver to the ton; this sample came from a vein 2 inches thick, and, therefore, of a sufficient width to give a very high value to the whole of the mineral. Another assay, made by Prof. Richardson, showed that by the wet process the ore yielded 1000 ozs. per ton. Besides these 9½ tons, they had a parcel of unsorted ore of 5 tons en route, which the manager sent word they were to expect would sell for a greater amount than that realised for the 9½ tons already sold. A further 10 tons they expect left on November 5. Every report from the mine justified them in believing that the property is certainly what it was stated to be. Professor Richardson's report was not received until late in October, when copious extracts were forwarded to the Mining Journal for publication, and a copy forwarded to each shareholder. The professor spoke only of the Silver Plume, and said nothing of the Silver Star; both mines were upon one vein, each comprising 1500 ft., and really were one and the same lode. The Professor says there is \$500,000 worth of ore in sight, worth upwards of 100,000. He spoke of the advisability of constructing a tramway for bringing the ore from the mine to the vi- lage, estimating the cost at about 4000. It would answer the purpose of the Snowdrift Mine, so that it might be made in connection with both companies. At present they had no idea of erecting reduction works, because the ore was so good and valuable that it would pay much better to continue to send it to Liverpool. As to crushing works, they were at Snowdrift. The poorer ores must be treated on the spot, which could only be done when reduction works shall have been erected in the neighbourhood. The mine was really what it had been represented, and they might look forward to having a very considerable value out of it. Having stated that he should be glad to afford any further information, he said his first business was to ask the shareholders whether they would re-elect the directors whose names appeared in the prospectus, all of whom were willing to serve again. They were—Messrs. G. Batters, J. Carr, J. Heseltine, T. Orchard, W. Wadham, and W. Wood.

MR. FIELD had much pleasure in proposing their re-election. MR. ANDREWS having seconded the proposition, it was put and carried unanimously.

Upon the proposition of MR. FIELD, seconded by MR. HESLETT, MR. Alfred Wilson was elected a director.

The CHAIRMAN hoped that at the next meeting they would be able to talk about dividends.

MR. J. W. WILLIAMSON believed that this was one of the best mines yet placed upon the London market, and that it only required a little perseverance to make it a great success. He believed that in Mr. Gray they had an excellent, admirable, and efficient man, but he did not appear to see the necessity of sending home the ore as soon as it was raised. There was no reason why they should not have weekly, or at least monthly, returns. When Mr. Gray was in this country he computed the present capital would be more than sufficient, and promised that during the first year he would pay the shareholders more than 25,000. He urged the desirability of keeping the mine well worked by the public.

MR. FIELD said in a letter from Mr. Gray, dated Oct. 23, he stated that if he had not as yet produced as much ore as he estimated, the increased value of the ore raised was quite an equivalent. A full quantity of ore was now at work, and before the end of January he hoped to be able to extract 10 tons of ore per week.

MR. GRAY further stated that in eight or ten months the railway would be within a short distance of the mine.

The CHAIRMAN said the board fully appreciated the importance of keeping the mine before the public, and pointed out that one of the most satisfactory things in connection with this mine was that the quality of the ore was far above what was represented—the ore taken, without selection, fetched more than 70s. per ton. MR. FIELD said that Mr. Collom, of the Snowdrift Mine, was of the opinion that a wooden tramway would be more efficient and cheaper than a wire tramway. MR. WILLIAMSON proposed a vote of thanks to the Chairman and directors, for the satisfactory manner in which they had conducted the affairs of the company. He had no reason whatever to doubt the results realised during the forthcoming year would be satisfactory; and he hoped it would be necessary for the directors to convene a special meeting to declare a dividend. MR. SMEDLEY having seconded the proposition, it was put and carried unanimously.

The CHAIRMAN, on behalf of the board and himself, thanked the shareholders for this mark of confidence, and could only say they would endeavour to do the



best they could to continue to merit it. There was no doubt they had a most valuable property, and that their most sanguine expectations would be fully verified. (Hear, hear.)—The proceedings then terminated.

### THE COLORADO TERRIBLE LODGE MINING COMPANY.

A special general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Monday, to consider a proposal that the company should acquire, by purchase for the sum of 60,000l., the mines and other property of the Brown Mining Company; and if the shareholders should be disposed to acquire the property upon the terms provisionally agreed upon, the following resolutions to be submitted to the meeting:—

1. That the nominal capital of the company be increased from 125,000l. to 200,000l.—2. That in addition to the 21,000 shares, representing 105,000l., already issued, the directors be empowered to issue additional capital to the extent of 75,000l., in 14,000 shares of 5l. each, for the following purposes:—(a) The purchase of the Brown Mining Company's property; (b) A working capital of 10,000l.—3. That 11,000 shares, representing 55,000l., be offered in the first instance at par to the shareholders, at the rate of one share to every two existing shares held by each, and that the shares not taken by shareholders be offered to the public.—4. That the directors be empowered to purchase the Brown Mining Company's property for 60,000l. (of which 15,000l. is to be paid to the vendor in shares) as soon as they are satisfied, on a special report to be made by Mr. Teal, that the property is as good a condition as described by Mr. Moffat, and capable, under proper management, of yielding the amount and quality of ore asserted, and also on completion of a perfect title.

Sir CECIL BEADON in the chair.

Mr. F. ANDREWS (secretary) read the notice convening the meeting.

The report of the directors stated that the property was contiguous to the Terrible lodge, and the directors consider that its acquisition on the terms provisionally agreed upon would not only be advantageous in itself, but would greatly enhance the value of the Terrible lodge Company's present possessions. It consists of three distinct silver-bearing lodes, lying parallel to the Terrible lodge all holding the same mineral as the United States Coin lode, 1400 ft. on the John Brown lode, and 3000 ft. on the Glasgow lode. It also includes 800 ft. on the Mammoth lode, which is supposed to be identical with the John Brown lode, and has been purchased by the owners to prevent dispute, and a tunnel in which a tunnel has been driven a short distance striking the Glasgow lode. The property also comprises an ample mill site, wire tramway, buildings, machinery, &c., certified to have cost 125,000l., and to be now in good condition. The whole of this property is offered for sale to the Colorado Terrible Lodge Mining Company for 60,000l., of which 15,000l. will be taken by the vendor in the stock of the company and 45,000l. in cash. The John Brown lode, including the Mammoth, was reported on by Mr. C. S. Richardson, in Aug., 1870, and again in Sept., 1871. Mr. Richardson stated that he has no reason to lessen his previous opinion; but, on the other hand, is more favourably impressed with its sterling value, inasmuch as the eastward continuation of the Brown lode in the Mammoth Mine has proved very productive. The lode is about 4 ft. wide, with a felspathic gangue, carrying on the south wall a vein of solid ore 10 in. thick, consisting of silver-lead, dark zinc-blende, and grey copper (fahlerz), with spots of ruby and garnet, and small veins of silver-lead, silver-arsenide, pyrites, and some silver sulphurets in the usual black pulverulent form, together will make 3 in. more, thus constituting 1 ft. of mineral, or one-fourth of the whole contents of the lode. Mr. Richardson then goes into detailed calculations, from which he draws the conclusion that the value of the lode is 647.76 per fathom, and the approximate cost of working 334 per fathom, leaving a gross profit of 298.76 per fathom; and from an inspection of the books of Messrs. Palmer and Nichols, of Georgetown, at whose works some of the ore of the Brown Mine has been reduced, he finds that 18½ tons of ore have yielded an average produce of 141 ozs. of silver per ton. He adds—"For a long time I have advocated a consolidation of the Brown and the Terrible, its immediate neighbour. I have advised with both companies, and have shown the many advantages that would be derived by such an amalgamation. This will become more apparent now than ever since the cross-cut tunnel has been completed to the Terrible lode. This tunnel should be continued onward to intersect the Brown lode (about 400 ft.), and when effected it will form not only the medium of perfect drainage, but the line of egress for all its products, thus doing away with the necessity of the saving of which is equivalent to a small dividend. In addition, several small veins known to exist at surface, but which I consider to be mere branches of the two main lodes, will be intersected, which if found worthy may be driven on without further cost, and if productive will contribute to the general returns of the united mines."

Mr. Richardson further advocates the purchase of the Glasgow, which is an independent lode intermediate between the Terrible and Brown lodes, also in the line of the tunnel extension, but which has not yet been worked, and he concludes with the following remarks:—"The mines arranged on this plan would form one of the most magnificent undertakings in the district, and if worked under judicious and economical management would not only yield a dividend profit to the Consolidated Company much in excess of what others can now command, but for a permanency, as these must become deep mines."

Mr. Moffat, the gentleman through whom the offer of the property has been made to the company, estimates that the Brown Mine alone at this moment is capable of producing monthly throughout the year at least 40 tons of first-class ore, valued at 4000 per ton, and that on this basis it may be made, under skillful and honest management, to yield a net annual profit of over 30,000l. And he challenges the test of this opinion by an examination of the property. Mr. Clark, the managing director of the Terrible Company, writing on Sept. 19, says:—"I should like very much to see the Brown lode and works in the hands of the Terrible Company, as then we should have a mining property from which the supply of ore would never cease; and when the two lodes are connected by the continuation of the Terrible, or by a new tunnel driven from the foot of the mountain, both could be worked profitably and advantageously."

Mr. George Teal, who has recently been appointed local agent and manager of the Terrible Mine, writes with reference to the present proposal:—"The purchase of the claims mentioned, with buildings, &c., would make your company one of the best in the district, and with proper management must return large profits. I have not seen the property since February, 1870. If the veins are showing ore as rich as when I examined the mine, I should decidedly say it is worth your consideration. I should like to examine the workings, buildings, &c., prior to recommending the purchase."

The CHAIRMAN said that a statement had been prepared showing exactly what had been done at their Terrible Mine since the commencement of the year. It showed that from April to June the net result had been a profit of about 4000l. During July 98 tons were raised, which gave 4000l., and August 87 tons, valued about the same; and the expenditure in July was 7200l., but that for August was not yet known, although it would, no doubt, be about the same as that for July. So that supposing the whole of the profit was divisible it would give a quarterly dividend of 3½ per cent., which did not come quite up to the expectations formed at the beginning of the year. If, however, they could realise 3 per cent. per quarter they would not do badly. The mine was in a most productive condition; the testimony of Mr. Clark confirmed that opinion, and there was nothing to make them doubtful as to its eventual capacity. Since the last meeting he (the Chairman) had been to Colorado and through the mine, and as far as the experience of a layman could judge, he might say that he felt very confident that the accounts they had received as to its value were in no way exaggerated—he fully believed it would realise those profits they had been led to expect, and that at no very distant date. Although since the last meeting they had changed their agent he must do him the justice to say that from the time he took charge of the mine up to the present time he had exerted himself to the best of his ability for the good of the company. But the directors had on several occasions to differ with him in opinion as to the mode in which the mine ought to be managed, and its resources developed. The consequence was that he had tendered his resignation, which was accepted, and Mr. Teal, a practical mining engineer, who had managed a very similar mine in Colorado, had been appointed agent. The directors had been in personal communication with Mr. Teal, and they believed that by the end of this month he would be in charge of the mine. There had been no reason to complain of the way in which the underground works had been carried out; on the contrary, Prof. Richardson, who accompanied him (the Chairman) over the mine, spoke highly of the way in which the mine was being opened out—the failure had been in dealing with the ore after extraction, but when Mr. Teal took charge he hoped there would be no further difficulty. Now as to the matter for which they had met. When on the mine he (the Chairman) was struck with the very great advantage it would be to this company if they possessed, besides the Terrible, the other lodes in the mountain—the John Brown, United States Coin, and Glasgow—for there could be very little doubt that then it would be a very valuable property, and the best in Colorado. There were five lodes running parallel, of which only two had been proved—the Terrible and the John Brown, the others being as yet undeveloped. When this company was started it had the advantage of a tunnel eight, from which a tunnel could be driven into the mountain. By this they would be able to reach their own lode, and they had also the right to bore through the mountain and take advantage of any previously undiscovered lodes, besides which they could demand a royalty for every ton of ore taken through the tunnel belonging to the owners of the discovered lodes which the tunnel might strike. It seemed to him very obvious that having this tunnel driven 350 ft. into the mountain, it would be a very great advantage to the Terrible Company if instead of having a royalty upon ores belonging to other people they got possession of those lodes themselves, bringing all the ore through their own tunnel upon advantageous terms. Professor Richardson, who was the highest scientific authority in mining matters in Colorado, spoke of the advantage that would be derived by the amalgamation of the Terrible and the Brown Mines, and Mr. Clark expressed a very strong desire that the Terrible Company should

become the possessors of the Brown Mine, Mr. Clark considering the latter to be of equal value to the Terrible. Therefore, the directors had come to the conclusion that it would be very advantageous to amalgamate the two mines, but when he was told the price was 100,000l. he gave up the idea. When he saw the Brown Mine it was not at work, having been attached for a debt; a certain quantity of ore had been taken out and was lying in "dump" under attachment. Upon reaching England he heard that Mr. Moffat, who represented the bank at Georgetown, to whom the Brown Company was indebted, had offered the property for 100,000l. He at once said the price was too high. Mr. Moffat then offered it for 80,000l., and eventually agreed to take 60,000l. The board felt they would not be doing their duty, and would be incurring a very heavy responsibility, if they did not make the offer known to the shareholders, and take their opinion whether the business should be proceeded with. The directors were not in possession of information regarding the past produce of the mine; but they felt it incumbent to place the matter before the shareholders upon the condition that Mr. Teal's report should confirm Mr. Moffat's statement as to the present productiveness of the mine. Mr. Teal had instructions to send home his report immediately. It appeared that the Brown Company started with a capital of 100,000l., of which the working capital was 10,000l. The company began by engaging a superintendent with a salary of 10,000l., and an assistant superintendent and secretary at a somewhat similar salary, the president receiving about double as much. The capital was expended upon surface works entirely useless. Hence the property became in debt and was attached. He strongly recommended the shareholders to proceed with the purchase, provided Mr. Teal's report be entirely satisfactory. The question before the meeting now was simply whether the shareholders were disposed to acquire the property upon the terms provisionally agreed upon.

Mr. MOFFAT stated that the Brown Mine came to light under the circumstances stated by the Chairman. The company got into debt by voting large salaries to themselves, and being extravagant in their working. When the last shipment of bullion was made the owners came to the bank and drew a draft against it. The proceeds of bullion were appropriated, and the draft not paid; and nothing but dishonest management had brought the mine to its present condition.

The CHAIRMAN, in reply to a question, stated that there were 1400 ft. on the John Brown lode, 800 ft. on the Mammoth (which was identical with the John Brown), 800 ft. on the United States Coin, and 3000 ft. on the Glasgow, making altogether 6000 ft.

Mr. MOFFAT said the Coin was supposed to be as good a lode as the John Brown. The Brown Company had extracted a very large amount of ore, about 25 tons monthly had been smelted in their own works, but they had never had any record of the total quantity got.

The CHAIRMAN said the directors had written to Mr. Teal to afford that information. It appeared from the statement prepared in April by Mr. Watson, the late agent and superintendent of the Brown Company, that in 1869 301 tons of ore taken from the Brown, or Mammoth, lode, and smelted at the company's works, produced 59,810 ozs. of silver, being an average of 218½ ozs. per ton, the assays varying from 91½ to 183 ozs. per ton. The directors had no accurate information as to the whole produce of the Brown or Mammoth lode in any year, but were informed that the mine had never been properly worked. When the directors issued their statement they were under the impression that the purchase-money for the mine must be paid by Dec. 15. He had been in correspondence with Mr. Moffat with reference to the small amount he proposed to take in shares. Mr. Moffat had explained the reason, but if the shareholders would agree to authorise negotiations to complete the purchase he would endeavour to extend the period, and also if there was any difficulty on this side with regard to capital would do his best to induce the shareholders of the Brown Company to take a larger proportion in shares.

Mr. J. FIELD thought the directors had made a little mistake in not submitting to the shareholders something of a definite character—for instance, the scheme of payment conditional upon Mr. Teal's report. Upon the reading of the statement issued by the directors, it rather appeared as if the purchase was confirmed, and the shareholders would be required to pay 40l. or 50l. per share.

The CHAIRMAN quite admitted that the proposal as laid before the shareholders, was not so definite as it should be, but at the time it was issued the directors were under the impression that the time was limited to Dec. 15.

Mr. HANLEY believed the Brown Mine to be a very good property, but it was very desirable that the purchase money should be taken in shares.

After some further discussion, it was unanimously resolved, upon the proposition of Mr. WARNER, seconded by Mr. GEORGE, that the meeting should be adjourned until after the receipt of Mr. Teal's report.

The CHAIRMAN said that while in Colorado he went twice through the Terrible Mine, in company with Prof. Richardson, their manager (Mr. Clark), and the foreman, to the last-named of whom they were very greatly indebted for the satisfactory internal development of the mine. He went through the several drifts, and came out at the shaft. He satisfied himself by ocular proof that the description which had been given of the mine was perfectly correct, and he had not the slightest doubt that it was quite worth what they believed it to be, but the treatment of the ore must be conducted in a more workman-like manner. The treatment of the ore had not been conducted in a very satisfactory way. When the mine came under the charge of Mr. Teal, who had had considerable practical experience in a mine of a similar character, there would be no further difficulty. Labour would gradually increase as the railways were extended. From the way in which Americans built railways, there would no doubt be one constructed up as far as Georgetown by the end of next year. Although labour was high there was no want of it, and the tendency was to lower prices. Advances had been received that another shipment had been made, of 10 tons of first-class ore, of an estimated assay of 650 ozs. of silver per ton, equal to about 1300 per ton. Mr. Teal had been instructed to furnish detailed reports, which would be forwarded to the shareholders as received.

A vote of thanks to the Chairman and directors terminated the proceedings.

### WHEEL KITTY (ST. AGNES) MINING COMPANY.

A general meeting of shareholders was held at the offices, Austin-friars, on Thursday, Mr. EDWARD KING in the chair.

Mr. J. HICKEY (the secretary) read the notice convening the meeting, and the minutes of the last were read and confirmed.

A statement of accounts was submitted, made up to the end of September, which showed a credit balance of 2421l. 16s. 10d. The profit on the three months ending September amounted to 2195l. 16s. 8d. The tin sold realised 4426l. 16s. 1d., and the costs amounted to 2230l. 19s. 5d. The only liability was 195l. 1s. 5d., for dues on sales credited in this account, which deducted from the assets left the above credit balance of 2421l. 16s. 10d.

The report was read, as follows:—

Nov. 14.—The sinking of the new shaft is completed to the 130, and the shaft-men are engaged driving south to cut the lode, which we hope to reach in about six weeks from this time, when we hope to find it productive. In the 118 ft. level, driving west of new shaft, the lode is worth for tin 12l. per fathom. In the 118, driving east of shaft, the lode is worth for tin 14l. per fathom. In the 108, driving west of shaft, the lode is worth for tin 18l. per fathom. In the 108, driving east of shaft, the lode is at present unproductive. In the 94, driving west of shaft, the lode is worth for tin 14l. per fathom. We are crosscutting the lode in the 94, east of shaft, where the lode for the present is disordered. The rise in the back of the 94, west of shaft, is worth for tin 18l. per fathom; when this is communicated with the 82 good ventilation will be effected, which will be accomplished in about a month from this time. The driving of the 82 west is suspended until the communication referred to above is completed. The rise in the back of the 34 has much improved since our last report for the quarterly meeting, being now worth for tin 8l. per fathom, with a very kindly appearance. In the 32, on the old lode, driving west of Holgate's shaft, the lode is small and unproductive. Our stopes and pitches continue to yield their usual quantities of tin, and with the present price we see no reason why our present returns should not continue.—W. TEAGUE, S. DAVEY, J. WILLIAMS.

The CHAIRMAN said the statement of accounts just submitted could not fail to be most satisfactory to every shareholder, seeing that 50 tons of tin had realised a net profit of 2195l. 16s. 8d. The whole of the merchants' bills have been paid under discount, and the only indebtedness is 195l. 1s. 5d. for dues on ores credited. Those shareholders who had been in the mine years were aware that they always received from the manager a most modest report, but that the results always surpassed expectations. He had hoped that the manager would have been able to attend this meeting. A letter had been received from Mr. Teague congratulating the shareholders upon the success of the mine, and referring to the fact that he had offered an extension of the sett westward upon the course of the lode.

Mr. F. W. MANSELL asked if the additional ground westward had been at all developed?—The CHAIRMAN said it was worked some years since, down to about the 40 ft. level, and was known as Wheel Friendly.—Mr. MANSELL said the general opinion was that there was a good mine in depth.

The CHAIRMAN said it was a continuation of the Kitty lode west, and could not fail to be of great value to Wheel Kitty, for the lode at every level was at least certain to be good; for since it was cut in the 24 ft. it had been most productive in each level, adding greatly to the reserves. He did not know another tin mine that could be carried on at so small a monthly cost with such grand results. The monthly cost was about 615l., including labour and merchant's bills.

Mr. MANSELL said they were singularly fortunate in having such a manager as Mr. Teague, who was one of the most able and economical managers in the country, and every credit was due to him for his efficient and satisfactory manner in which he had developed the mine. (Hear, hear.)

The CHAIRMAN said that, besides an exceptional manager, they possessed a mine with exceptional economic advantages, not the least being the exceedingly light water charges. The lode was rich and compact, and they had a long run upon it.—A SHAREHOLDER enquired the estimated value of the reserves?

The CHAIRMAN said they preferred to deal with results rather than with the question of "reserves," although there was no doubt they must be of considerable value; but they wished a competent agent to inspect the mine and to obtain the information he required. Wheel Kitty was one of the very few mines that never ceased to pay dividends all through the American crisis, when tin was at such a depressed price, and from that time to the present the amount of dividends had gradually increased.

Upon the proposition of Col. CLARKE, seconded by Mr. CHESTON, the accounts

were passed and allowed, and with the report, were ordered to be entered upon the minutes.—The CHAIRMAN said that the committee had unanimously agreed to recommend a dividend of 7s. 6d. and a bonus of 7s. 6d. per share. Mr. MANSELL had much pleasure in proposing the distribution recommended by the committee.—Mr. CHESTON seconded the proposition, adding that, although upon the present occasion the additional 2s. 6d. per share was proposed as a bonus, the mine presented indications justifying the hope that at the next meeting the committee would recommend a dividend of 10s. per share.

The CHAIRMAN, referring to the price of tin, stated that there was every reason to believe a further advance would take place, although personally he would rather see the present price fairly maintained than any appreciable further advance should take place.

A vote of thanks was passed to the Chairman for the explanations he had afforded in respect to the mine, and to the committee for their continued attention to the company's interests.

The CHAIRMAN having acknowledged the vote, stated that he had been identified with the mine for 20 years, and, therefore, it was very gratifying to him to see it yielding such grand results, the more especially as for many years it was a difficult matter to keep the mine going. But from the time the tide turned in their favour, and has been a career of great prosperity.

The meeting then separated.

### CHIVERTON MOOR MINING COMPANY.

The general meeting of shareholders was held at the company's offices, Bishopsgate-street, on Thursday, Mr. MACKAY in the chair.

Mr. WARD (the secretary) read the notice convening the meeting and the minutes of the previous one, which were confirmed. The statement of accounts to the end of September were read, showing a debit balance of the sum of 1499l. 8s. 8d., and the audited report of the agent was then submitted.

Nov. 15.—Mr. HARRY's engine-shaft is sunk 9 fms. 4 ft. below the 116; the ground is of a favourable character for progress, being of a light-coloured killas. We expect to be down to the 128 by the end of the present week, after which we shall commence driving west to cut the caunter lode. The 116 is driven south-west of the shaft 32 fms. on the course of the caunter lode. In the present end we intersected an east and west lode, from 2½ to 3 feet wide, composed of flookan, quartz, mundle, and a little lead, since which we have driven west on its course about 5 fms., and find it daily improving in character and value, being now 3½ ft. wide, of the most promising appearance. We have about 20 fms. further west to drive to reach our lead-bearing ground, when we expect this lode will prove productive. We intend to continue the driving south of the new lode on the course of the caunter, as, according to the bearing and underlie of the old lode, we have about 8 fms. further to drive to intersect it, unless by some influence it is here out of its regular course. The 105 is driven west of the shaft about 50 fms.; the lode in the present end is 3 ft. wide, composed of capel, quartz, mundle, and lead—a strong, well-defined lode. This end has now reached the run of our shoot of lead, and from the present favourable appearances of the end, we soon expect a good lode at this level. The lode in the rise in the back of the 108 is 2½ ft. wide, worth 4 cwt. of lead per fathom; this we hope to communicate with the vein sinking from the 95 in about four weeks from this time. The lode in the waste sinking in bottom of the 95 is worth 8 cwt. of lead per fathom. There are two stopes in back of the 95, which are worth respectively—No. 1, 15 cwt.; No. 2, 12 cwt. of lead per fathom. A stop in back of the 85 is worth 10 cwt. of lead per fathom. We have also 10 tribute pitches, working on an average tribute of 5l. per ton. The pitwork and machinery are all in good working order. We may remark that our engine is capable of any reasonable development of this sort, our rate of working being only about 3½ strokes per minute.—GEORGE E. TREMAYNE.

Mr. WARD said that as Capt. Tremayne was present he would be glad, he was sure, to give the shareholders any information upon his report they might require.—The CHAIRMAN was afraid they could not look at the report as very encouraging one, but he thought that as they got into the ground they might meet with good ore. At least, they hoped that at their next meeting their credits for lead would be more.

Capt. BENNETT had read the reports that had recently appeared in the *Mining Journal*, and as he had been in the mine himself he had no hesitation in declaring that they were not truthful. He denied that there was ever 5 cwt. per fathom broken from the 105 ft. level.

Capt. TREMAYNE said the 5 cwt. was merely an estimate, and they had 60 fms. to drive in the 116 before they came under the lead ground gone down above. The mine, it was true, was not looking so well as it had been, but they had cut a lode in the Chiverton Valley, which from the drillings he estimated would form a junction in their mine at about the 115 ft. level, which might prove very valuable.

Capt. BENNETT complained that he had been removed from his position at the previous meeting, receiving salary in lieu of notice, by which he was much prejudiced, and prevented from obtaining other employment, which he considered very hard after serving the mine faithfully for seven years. He said that he was simply for motives of economy, and stated that the committee had not the slightest charge to make against him.

A SHAREHOLDER enquired what would be the effect of the projected stoppage of Chiverton Valley upon the Chiverton Moor property—whether they would not have to pump much more water?—Mr. ROSEWATNE thought that if the lode cut in Chiverton Valley were cut in Chiverton Moor it would no doubt be a valuable one. He did not see that they had much to apprehend from the Chiverton Valley water. It would only give them a stroke and a half a minute any how, and as they were only making 3½ now that would only be 5 strokes a minute.

Mr. PRYOR was asked to state, on the authority of the lord, that if Chiverton Valley were stopped there would be no difficulty for Chiverton Moor to obtain Chiverton Valley sett.—Capt. TREMAYNE thought that if both were worked together it would be a most valuable piece of ground.—The report and accounts were unanimously adopted, and a call of 10s. per share made, payable on Nov. 30.—The CHAIRMAN said the next question was what they could do to economise, and to that end he proposed that the London office should be discontinued.—Capt. FOUILLANT enquired what economy would be effected by the change proposed?—The CHAIRMAN said about 10% per annum.—Mr. WARD said that the total amount they received for London expenses was but 60l. per annum.—Capt. FOUILLANT considered it false economy to discontinue the London office if it cost no more than that.

Capt. BENNETT said that it was not in the payment of London office expenses that money was misapplied, but in the manner in which purchases were made at the mine. Mr. T. Pryor, Mr. F. Mitchell, and Capt. Tremayne bought the material for them to the mine through another person at double their value. He would especially refer to some brass which was bought by Mr. T. Pryor, at 6½d. a pound, and sold through Mr. James to the mine at a shilling a pound.

Mr. PRYOR would ask Capt. Bennett whether anything was charged to the mine that had not been delivered?—Capt. BENNETT said that was not the question he raised being complained of brass being bought at 6½d., and sold to the adventurers at 1s.—Capt. TREMAYNE said it was not charged 1s. to the adventurers, but only 8d.—Mr. TREMAYNE (a committee member) said that if Capt. Bennett was aware of these facts he should have mentioned them whilst still in the service of the company.

Capt. BENNETT declared he had mentioned such matters frequently to Mr. Tremayne's brother (Capt. Tremayne), but that he was told to mind his own business, and as he had ten children to support he dared not inform the adventurers without sacrificing his place at the mine.

Capt. TREMAYNE denied the truth of Capt. Bennett's statement; and after a close approach to hard swearing on both sides business continued.—Mr. SUTTON complained that most fallacious statements had been made—it had been stated that 90 tons had been sampled, yet the parcel only weighed out 45 tons.—Capt. TREMAYNE did not know there had been so great a difference as that.—The CHAIRMAN then proposed to put the motion to the meeting, but an amendment was proposed negating it.

Mr. WARD was aware that as the Chairman held 1000 shares it was useless to attempt to prevent the resolution being carried, but he would state before the resolution was put that as he was one of the lessees of the mine it would be impossible for him to give up a single book or document, and that what they could do to the mine was to reduce the interest from 200 to 55 shares, but he had still great interest in the progress of the mine, and was convinced the welfare of the mine was being sacrificed in abandoning it to the person at the bottom of the table (Mr. T. Pryor) and Capt. Tremayne. If they were comparatively helpless with a London committee they would have no control whatever without it.

The CHAIRMAN then put the resolution and declared it carried, as well as a resolution for handing the books and papers to Mr. T. Pryor, who, with Capt. Tremayne, will take the management of the company, order all goods and pay all money jointly.—Mr. T. PRYOR proposed a vote of thanks to the Chairman, but Mr. SUTTON remarked that such a proposition was absurd after what had taken place, the matter was not pressed, and the meeting separated.

NEW PEMBROKE.—At the general meeting, held at Par Consols on Nov. 7 (The Rev. E. J. Treffry, D.D.L. in the chair), the accounts for the four months ending August showed a credit balance of 970l. 16s. 5d. A dividend of 800l. (2s. 6d. per share) was declared, and the balance carried to the credit of next account. Capt. Francis Puckey and John Puckey say—"The future prospects of the mine never looked better than at the present time, and we have great pleasure in stating that every level in depth is proving to be the best for mineral, which is the greatest encouragement we can possibly have. During the past four months we have sold about 43½ tons of black tin, which has realised 3628l., being an increase of about 9 tons on the previous four months, and copper to the value of 469l., together equal to 4097l.; and from our present prospects we hope to return about the same quantity of tin in the next four months, but the future returns of copper will still, in a great measure, be regulated by the discoveries we can make. The mine and all the machinery thereon is in good working order, and everything is being forced on as fast as possible."

FRANK MILLS.—At the meeting, on Nov. 10, Capt. J. Cornish, F. Cornish, and N. Addams, in their report, said—"We have changed our pitwork in the engine-shaft, and put everything in connection therewith in first-rate condition, which we find is saving us at least 4000l. of coal per week. All the tramroads, shafts, levels, air-ways, and the mine generally are in good repair, and we hope to be able to report an important improvement by the next general meeting. In either the 100, 115, or 120 ft. ends, now we have a prospect of forcing them on by full complements of men. We have two pitches working in the back of the 45, by four men, at 2l. 10s. and 5l. 10s. per ton tribute, and the men are earning good wages. The total number of persons we have at present employed is 190."

BRADDA MINING COMPANY.—At a meeting of the directors, held at Douglas on Nov. 3, a very elaborate report of Captain R. W. Rickard, after having inspected the mine, was read, and which appeared to the directors to be highly satisfactory. After considering this report the directors feel bound to adopt the strong recommendation of Capt. Rickard—to finish the erection of the engine on Spittal's shaft, with pumps, &c., and put down that shaft with all possible speed, and to carry out the other points of working as recommended by Capt. Rickard; he intends to continue sinking the north shaft during the current month, and it appearing likely that the two lodes have already come together in the engine-shaft, Capt. Rickard intends to put the shaftmen to drive a cross-cut at the 70 to intersect the east lode, and when cut to drive north and south on that lode. Capt. Rickard says—"In conclusion, I do not hesitate to



affirm that there are few speculations in mining that promise so favourably to become a great success as the Bradda Mine; and it only requires a little patience on the part of the shareholders, and perseverance in carrying out the best plan of developing the mine, to reach before very long the fruitful period of its history. I bear testimony to the efficient and economic way in which your works are conducted by your able manager, Capt. Barkell, who also gave me unreservedly and most willingly the information I needed."

**BALMNHAR MINE.**—The general meeting of shareholders was held at Falmouth, on Tuesday (Mr. S. Edmonds in the chair), and the accounts showed a debit balance of £351. 19s. 9d. It was resolved that in future the tin be sold by tender. Capt. Tonkin and Harris reported that they expected to put in the new cylinder in about a month, and they will then considerably increase their returns. They have 85 persons employed. They consider their prospects to be as good as they have been for any period of the last 12 months.

**WICKLOW COPPER MINING COMPANY.**—At the meeting of shareholders, on Oct. 11 (Mr. Octavius O'Brien in the chair), the directors' report and statement of accounts, which were fully referred to in last week's Mining Journal, were unanimously adopted. A dividend of 2125l. (2s. 6d. per share) was declared; Messrs. Barnes and Worthington were re-elected directors of the company, and Mr. M. W. Hughes was appointed auditor. The resolutions are advertised in another column.

**FURZE HILL TIN MINING COMPANY.**—The general meeting was held at Plymouth, on Tuesday (Mr. Kemp in the chair). It was stated that the whole of the shares have now been allotted. Capt. Doidge stated that the works were proceeding with all speed. Everything was being done that ought to be done to get at the stuff, and to deal with it after it was got out. In a week after they get the pump at work the water will be forced to the 20 ft. level. The Chairman stated that they had thirty-five men employed, and that everything was charged close up.

**NORTH LOVELL MINING COMPANY.**—At the meeting, on Wednesday, the accounts for four months ending October, showing a credit balance of £21. 17s. 4d., were audited and passed. The agent's report, also special reports upon the company's mine from Capt. Richard Southey (of Truro) and John James (of Camborne), were also read. The Special Meeting called for the purpose of taking into consideration the question of the unapplied for new shares, was adjourned until December next.

**NANGLES MINING COMPANY.**—At the meeting, on Wednesday, the accounts for three months ending September, showing a debit balance of 1475l. 8s. 2d., were received and passed, and a call of 8s. per share (4s. 2d. to liquidate the debit balance, and 3s. 3d. towards the current three months' expenses) was made. The agent's report gave rise to considerable discussion. It was ultimately determined that the local purser and the agent immediately place the position of the mine with regard to the old workings before the lords of the soil, and to suspend operations in the north part. Also, the agent was instructed to use the utmost energy to develop the south part of the mine by sinking the derick shaft below the old level, extending the levels eastward, and cross-cutting south with all possible speed. The prospects of the south part of the property are considered highly favourable for making a good mine.

[The Meetings of other companies are published in this day's Supplement.]

## SILVER MINING IN THE CALLINGTON DISTRICT.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Some time since several letters were inserted in the Journal on the silver mines in the Callington district. Notably among your correspondents were Mr. Barnard, of the Queen Mine, and Mr. Pengelly, of Harrowbarrow. I would like to ask, through the Journal, what has become of these gentlemen and their pet scheme? We see occasionally a report from the agent on the Queen, but we hear nothing from Mr. Pengelly about those once rich old mines the late Capt. Malachi worked with such great success. I think in one of Mr. Pengelly's letters he intimated that a company was in course of formation to purchase the freehold and rework them, and, if I mistake not, I saw some extracts from the prospectus advertised in the Journal. As several others as well as myself are much interested in this question, I shall feel obliged to Mr. Pengelly if he will state, through the Journal, if the company referred to is really in existence, and what prospects there are of the very large deposits of low-price silver ore being turned to profitable account.—London, Nov. 15. ONE INTERESTED.

## SNOWDRIFT MINING AND REDUCTION COMPANY.

SIR,—Would you be good enough to correct that part of your report which refers to some assays of mine of Snowdrift ore, which appeared in last week's Journal. The assays, which yielded respectively 199 and 182 ozs. of silver, were not taken from the lode by myself. They were collected among a number of others from various mines by a person we employed during our visit to the mines in Colorado. I do not wish to imply that those samples are not perfectly bona fide ore taken from the Snowdrift lode, but I am naturally desirous that my name be attached only to those samples which I broke myself from the lode Morfa Works, Swansea, Nov. 14. RICHARD PEARCE.

[For remainder of Original Correspondence see this day's Supplement.]

**PEDAN-ANDREA UNITED MINES.**—Our reporting columns inform our readers that these mines have at last taken up a position on the dividend-paying list, an event which, besides being satisfactory to the fortunate shareholders who have survived the contrary winds and waves of misfortune, will be a source of gratification to the inhabitants of Redruth and the vicinity. Founded by the late Mr. S. Cardozo in 1854, the Pedan-andrea United Mines Company has in 17 years called up 87. 2s. on each of its shares. Hundreds of shares have been surrendered, and scores of adventurers have retired during the long career referred to; indeed, so disheartening has the aspect of affairs often been that the total abandonment of the "Bai" has very often been on the tapis. But Pedan-andrea fortunately possessed, and still possesses, some adventurers of the unexcitable and philosophical as well as opulent order, who were not to be frightened out of their property by adverse criticism, or out of their faith in their zealous staff, as long as these were in a mood to stick by the ship and recommended team to be kept up. The result is the declaration of the first and, we believe, not the last by many, of Pedan-andrea dividends. Since the re-opening of the mines in 1866 black tin has been sold from the property to the value of 255,497l. 11s. 4d., but, as in order to produce this yield, it has been necessary to stamp about 50 tons of stone for each ton of tin returned, the observant reader may understand without difficulty how current costs have swallowed up profits and adjourned dividends. In fact, until recently nearly every farthing earned at Pedan-andrea has been spent in the county of Cornwall, thus benefiting the local industries to a corresponding extent, and hence we are sure the adventurers, now that they have come to a favourable turn in the lane, will not fail to receive the congratulations of their neighbours. The report from the mines submitted to the general meeting indicated that during the past six months a large amount of exploration has been accomplished, and that in one section of the property no less than 8000 ft. have been spent in placing Cardozo's shaft in operation for extraction purposes, thus bringing under command a large quantity of ground hitherto inaccessible or difficult of access. In depth the mines are opening out well, and the committee have well-grounded expectation that the further they push their present successes the more brilliant will be their prospects.

**FLORENCE TIN MINE COMPANY.**—Since the report on this mine, inserted in last week's Mining Correspondence, further improvements have taken place. A part of the lode has been taken down in the bottom end on the Millpool Standard, and it is far better than was reported. Being then covered with rust and slime, the agents could judge of it only from breaking off small portions here and there, but now its face is fairly shown it is found to be richer than then supposed. There is also a great improvement in the 10 end, on what is called Fisher's lode, which is yielding rich slabs of tin. They have also a splendid lode in the eastern end, on the Millpool Standard; it is 17 ft. wide, with tin all through it, but on the north side there is a part about 12 in. wide, very good indeed, and worth much more than 15s. per fm. There is also a good improvement in the 10 west, on the so-called Fisher's lode. The rapid development of the mine, and the fact that the comparative value of some of the points with those of the same lode in the adjoining mine of the Great Western Company, as reported in the Journal of Nov. 4 (p. 953), it is obvious that the lode becomes richer in depth. Fisher's lode, which is the Florence Mine, at the 20, is worth 20l. per fm., and reported in the Great Western Company's Mine at the 40 as being worth from 30l. to 40l. per fathom; and Capt. Rogers stated at that meeting that from 30l. to 60l. per fathom would be a nearer estimate of its value at that depth. The prospects of this mine are excellent, and the directors have resolved at once to erect a more powerful engine for pumping, and to employ their present engine in winding and working the stamps, a large addition to which is required.

**SOUTH CARN BREA.**—No one has yet furnished you, that I have seen, any particulars relating to the locality or situation of this mine, now causing a great deal of sensation in Cornwall and elsewhere. South Carn Brea is an extensive sett, and in the very centre of the best mines that ever have been in Cornwall or anywhere else. Immediately to the east is Wheal Uny. Adjoining to the south stand the celebrated North Basset, East Basset, Wheal Buller, and Wheal Basset. To the south-west are West Basset, South Frances, and West Frances. To the north and west you have Carn Brea, Tincroft, Dolcoath, and many other rich mines; and I would remark that during the last 20 years those mines have given to the holders dividends to the amount of over 1,600,000l., and many of them are now paying annually almost fabulous amounts. South Carn Brea stands on the eastern and south slope of Carn Brea hill, and was worked formerly by Messrs. Thomas and Co.'s party. The eastern shaft was sunk by them to the 180 under adit, and successive levels driven east at some 10 fms. between each other. The present party made the 130 the pioneer one, and here, some 20 fms. behind the adit, and a splendid lode was discovered, and has varied in value from 120l. to 25l. per fathom for all the distance driven; and, seeing the long piece of ground remaining to be driven through up to the cross-course, and which is the boundary between this mine and Wheal Uny, not the slightest doubt is entertained but that it will continue its productiveness the whole of the distance. Other levels are being driven over and under the 130, and when further advanced the same result will certainly be found. A rise is being put up in the back of the 130, in a splendid lode of grey copper ore, entirely in whole ground to surface, and which is some 140 fms. high. From every reasonable opinion formed of this block of ground, it is not too much to calculate on largely increased returns, and a continuation for many years to come, and which will give to the shareholders a succession of dividends, similar to those paid by the Basset and Buller, &c., for so many years; in fact, no one can doubt but that South Carn Brea has the finest piece of unworked ground in Cornwall.

## MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

**WHEAL DANIEL (Chacewater).**—We are glad to hear that the works in this new mine are being pushed on with all speed, and that what has already been done has given great satisfaction to the adventurers. The 50-in. engine has been put to work, and has forked the mine to the 18 ft. level, where it appears that large quantities of tin have been extracted, and any amount still remains, worth at the sample which have been tried, 6l. 18s. per ton of tin. Shares are in demand at 2l. to 2l. 10s., but there are hardly any sellers at that price, as it is believed that Wheal Daniel will prove to be a prize before long, should the lode in the 48, which the late adventurers were expecting to cut every day, prove to be as valuable as it is in the higher levels. The next meeting will be held in about a fortnight, when the manager will have a very encouraging report to lay before the shareholders. We may mention that there is great talk of Wheal Daniel's neighbour, Great Wheal Busy, going to work. We only hope it may be true, as it would be a great blessing to Chacewater and the neighbourhood, to say nothing of the profit it would be making, considering the present price of tin.

**BLENCOWE CONSOLS TIN MINE.—FAST SHAFT SINKING.**—During the last four weeks the above company have had their engine-shaft sunk 6 fms. 1 ft. 2 in. by nine able Cornish miners; the size of the shaft is 12 ft. long by 7 ft. wide; the size of the sinking lift is 16½ in. working barrel, going ¾ strokes per minute; length of stroke, 10 ft. 6 in. I find the said shaft has been cased and divided, and ladders fixed 12 fms.; this has also been done within the last four weeks. The strata are everything that can be desired for the production of tin, and I must confess I have never seen so much work accomplished by nine miners in so short a time before in the county.—A CORNISH MINER.

**OLD TREBUBGETT.**—The last week's report from this mine shows that a great improvement has taken place in the bottom level at the south part of the mine. The lode here, as far as cut through, is 6 ft. wide, producing silver-lead to the value of 20l. per fathom; and, as there are 20 fms. of backs at once to operate upon, the value and importance of this part of the mine will at once be seen. Another sale of ore this week shows that the silver-lead keeps its high value of 32l. 10s. 6d. a ton, and a small parcel of silver ore has realised at the rate of 25l. per ton.

**THE ST. AGNES CONSOLS engine-house is up, and the works are progressing rapidly.** With full number of men on, the mine, in the judgment of those well qualified to form an opinion, is certain to be a great prize.

**WEST Llangynog (Silver-lead).**—In driving the cross-cut they have intersected a branch of quartz spotted with copper ore, &c. Capt. Thomas, late manager of the old Llangynog Mine states that it is precisely of the same character as they had in the old mine before reaching the main lode, which lode they are now pushing on with all speed to intersect in the deep level.

**FLORENCE AND TONKIN.**—The ground lately granted to this company, known as the Pengelly Estate, is a very great acquisition, going, as it does, a considerable length on the lead lode, which shows such magnificent gossan at surface, as well as containing several east and west lodges of great promise, two of which have been cut by constant presenting very long backs. The one nearest the Florence main copper lode, and parallel with it, is over 12 ft. in width, containing great quantities of the most splendid gossan, with every prospect of a great deposit of mineral at a comparatively shallow depth. This alone, to say nothing of the lead lode traversing the whole length of ground from north to south, is sufficient to warrant very high expectations as to the future of the mine. Several mining gentlemen of high standing visited the property on the 13th inst., and were greatly delighted at seeing the magnificent gossan from this massive lode. The shareholders are to be congratulated on this valuable addition to their property.

**OKEL TOR.**—This tin mine is developing itself in a most satisfactory manner indeed. In the 80 cross-cut north, which has been driven from the copper lode 23 fathoms, in the end the tin lode has been intersected, and found to be equally productive for tin; the lode here is also very large. The new revolving calciner goes to work this coming week, and preparations are making to erect a new winding-engine, so as to keep the present winding-engine always stamping. The additional chambers and flues erected most effectually catch all the arsenic, which will be a most valuable item in the returns from this mine. Okel Tor being close to the navigable River Tamar, vessels can load and discharge from the mine quay, thus effecting a considerable saving in the cost of transit of materials, &c. &c.

**WEST JEWELL.**—The operations at this mine are being pushed on. The sales of tin which have been made since the commencement have been met regularly; and the increase in the returns is now confidently expected, as the 30 and 42, under adit, will be soon clear, and tin ground opened out for a large number of tributaries. The manager promises 40 per cent. dividends as soon as the mine is in fork. The next sale of tin will take place the first week in next month, and is expected to be a very good one.

## FOREIGN MINES.

**ST. JOHN DEL REY.**—Morro Velho, Oct. 17: Morro Velho produce for September, 10,942 tons, from 4287 tons of ore; yield, 2,556 ozs. per ton. Morro Velho cost for September, 4202l.; profit, 174l. Morro Velho produce seven days of October, 2535 tons; yield, 2,383 ozs. per ton. Gala produce for Sept., 319 tons, from 592 tons; yield, 1,469 ozs. per ton. Gala cost for September, 214l.; Gala produce, 15 tons, from 15 tons; yield, 2,565 ozs. per ton. Sinking new shaft 15 days in October—A, 1 fm. 5 ft. 2 in.; B, 1 fm. 1 ft.

**DON PEDRO NORTH DEL REY.**—Report for September: Produce, 14,054 tons, at 8s. 6d. per ton, 5972l. 19s.; cost, 3537l. 12s. 9d.; profit, 2435l. 6s. 3d. Attendance fair, and operations carried on with energy. The produce amounts to 14,054 tons, and the general work yielded well, but box work not so auriferous as in August. At the adit the works have been prosecuted with vigour, and No. 8 shoot intersected at two points. The 25 north has been discontinued, but one eastward, on No. 6 shoot, has been pushed on. The lode at Bryant's where intersected is 14 fathoms west of No. 8; should it turn out to be a new shoot it may become of great importance to the company, giving us a large extent of rock sloping ground. Bryant's level is 7 fathoms perpendicular above Alice's, and 65 fathoms on the dip above the 25 fm. level cross-cut.—Mine: The stops have yielded well, though the lines have not given box work of so high a standing as formerly; thus in Curve and Canoa have been fluctuating, but in the latter to date there is an improvement, and the former remains disturbed. The lode encountered at Bryant's has been opened on to a southerly direction, but at present is poor, being so far west of any lodes at present wrought it may turn out to be a new shoot. At the exploratory works there is nothing new to report, and the 25 north level is still in the air. First Division of October: Resultant, 57,821 tons; produce weighed to date, 4958 tons.—Mine: I am prepared to report an improvement in the samples from the lode at Bryant's. At the other sections there is a little alteration, No. 6 vein not quite so good, and lines on Canoa and Curve have not been worked on since my last general work from the stops yielded fairly.

**TAQUARIL (Gold).**—Report for September: The mine captain's report will furnish you with the extent of ground excavated and work performed during the month, which you will perceive has not been attended with anything peculiar to call for special remark, except that the lodes in the 25 fm. level, west of Haynes's shaft, are undergoing a favourable change, and the winze and shafts are being cleared out, and the 25 fm. level, a little in advance of the 25 fm. level ends, shows an improvement. This month only 24 tons have been obtained.

**ROSSA GRANDE.**—Report for September: The sanitary state has been favourable, attendance of force fair, and the works have been pushed on with vigour. The pumping-machine at the Bahu Mine was put regularly to work on the 16th inst., and is doing excellent duty; the sinking of the shaft since then has gone on more speedily, and after the whim for hauling stuff is finished, which will be done by next month, we shall be able to sink about 3 fms. per month. There are no changes to note in the appearance and quality of the lode at Chacra de la Cruz, but may on with our work in this mine we shall require a shaft for ventilation and conveying stuff; at the same time the preparations at surface have been made for sinking the same. At the Caco lode nothing has occurred calling for remark.—First Division of October: Nothing worthy of note has occurred in the mine department since last commented on. The weather continues favourable for our surface operations, and the works at the different sections are progressing well.

**ANGLO-BRAZILIAN.**—Report for September: Passagem: The produce for the month amounts to 612 tons, from 286 tons, average 2.15 ozs. per ton. Total cost at Passagem, 460l. 8s. 7d. The result for the month may be viewed as satisfactory. The treatment of general stones, principally from Dawson's mine, north and south of the 25 fm. level, has been carried on with vigour, and with the month of August, and 1.36 ozs. against that of July. Various trials by the arrastre give a produce of 4 to 18 ozs. per ton.—Pitangui: The new approach of the wet season explains the continued heavy cost, having to considerably increase the force, so as to complete as much as possible all surface works now in hand.—Hoskins's Level: The 44 fms. of drifage length calculated to reach the Jacotinga is completed. The end is very disordered and wet. This part of the hanging wall once secured, all force will be applied towards making water shoot, as referred to in my last report.—Francisco: Anto Shoot: Incline and vertical shafts advancing slowly; at the former, the greater part of the month has been devoted to the securing of old workings through which we are passing. Most of them are in a very crushed state, but do not appear to be of very great extent.—Explorations at surface will be discontinued until after the wet season, there being no immediate call for same.—Surface Works: The greater part of the total force has been engaged on water-course, taking up dead levels, and erecting laundries.—First Division of October: Pitangui: Surface works are progressing slowly, owing to the wet season. However, under every disadvantage, I hope to solve the problem of the existence of gold by the month of January, which I feel certain we shall have.—Passagem: So far our trials have succeeded with the Jacotinga at Buraco Seco, and I hope by next month to give you the result of over 500 tons.

**GENERAL BRAZILIAN.**—Report for September: The shallow adit at Itabira has given trouble, but all other points of operation have proceeded well, and the amount of work done highly satisfactory. Explorations have been carefully attended to, and samples showing gold have occasionally been met with. The weather is fine, and surface works advancing apace. Force satisfactory, and materials and provisions plentiful.—First Division of October: Everywhere the operations continue to advance fairly, except the shallow adit Itabira; the latter is still giving trouble. At St. Anna the shallow adit No. 1 is progressing satisfactorily, and the same may be said of the shallow adit No. 2. At the old adit a shaft has been commenced, and sunk 4 fms.; debris auriferous. We intend, if possible, to sink 6 ft. further, and if the shoots are not met with in the shaft, to cross-cut to meet them. We feel anxious to strike the shoots, in order to test their value, and no effort will be spared to attain this object. We have encountered water, but so far nothing more than can be mastered by a California pump. At Itabira the shallow adit and Moore's shaft are advancing satisfactorily. At Lavra de Acima the cross-cut driven by us 10 ft., some months since, and then filled in, has been re-opened, driven 6 ft., and intersected an auriferous vein left near the surface by the former proprietors; it averages 14 in. by 2 in. We have taken it away for about 8 ft. in length, and washed it by hand, which produced 170 ozs. of gold. The surrounding debris will be stamped by an old stamping-mill near at hand, that has already been repaired by the company. This vein seems to be entire for about 15 or 20 fms. above where we made our intersection, but beyond this I have every reason to believe that

it has all been taken away. Below our intersection I am led to believe this vein is entire, but this remains to be proved, which will be done shortly by commencing another cross-cut further down the valley—this vein will be called the Souza's vein. The weather is fine, and surface works are proceeding apace. The health of the establishment is about the same. Materials and provisions plentiful. Produce to date, 170 ozs. I may mention, for your further information, auriferous, and a sample taken therefrom produced 1½ oz. of gold; it was then filled in to prevent speculation, as previous to this it had been decided not to allow the rego water to run over the mines till the adits were further advanced. The rainy season being near at hand, and the rain water as a certainty will come down the valley, I determined to avail myself of this opportunity of setting the old stamping-mill to work, and had this cross-cut opened; besides this, there are quantities of auriferous sands, that I have been told will pay well for stamping. We have a little of the latter collected.

**SWEETLAND CREEK (Gold).**—G. D. McLean, Oct. 14: The whole of the operations were proceeding in a very satisfactory manner. The new tunnel was in a distance of 234 ft., and was progressing well. There was no specific feature to note, everything going on as usual.

**SOUTH UTAH.**—Advices from this mine have been received, stating that the output of ore at present, under a limited working, amounts to 30 tons per day, containing 75 per cent. of lead and 20 ozs. of silver to the ton. It is calculated that under more vigorous management, such as is now being carried out, three times this quantity, or 90 tons per day, can be raised without stinting on the reserves of ore already laid open. The shaft being 75 ft. deep, and the lode 20 ft. wide, it can be readily seen what an enormous mass of ore is now waiting to be brought to surface; and, as the lode continues at the bottom of the shaft to maintain its character for productiveness, there is literally an inexhaustible supply of first-class ore. Such results as these, although astonishing to the mining community of this country, are by no means singular in the district where this mine is situated. As witness the Utah Mine, which is only ¼ mile distant, the Emma, the Saturn, the Camp Floyd, and others. The capital of this company has been arranged on a scale commensurate with the requirements, and, although not large, is considered amply sufficient to erect large furnaces for reduction, and to carry on the operations of the mine. The shares are quoted ¼ to ¾ premium.

**BRAGANZA (Gold).**—Capt. Roberts, Oct. 16: Brosscut is driven on the north part of No. 1 lode 2 fms. 0 ft. 8 in.; total, 6 fms. 1 ft. 8 in.; risen on the back of this same level, at the junction of the two lodes, 2 ft.; the lode is congenial, and 4 ft. big, but spare to break.—In the cross-cut, on No. 1 lode, the gold below, 6 fms. 8 in.; the lode and veins are all auriferous, but do not produce visible gold as they did below. We have now an intermediate level south-east from the Brosscut 4 fms. 1 ft., to prove the ground.

**SAO VICENTE.**—Report for September: Viscount's shaft has been sunk 40 ft., making a total depth of 90 ft. The hard ground in one side of the shaft, reported in my last, has quite disappeared. We are now sinking in factings, mixed with a little spar, which is generally considered favourable for the production of gold in this locality. We suffered a little in the early part of the week from the presence of foul air, since which I have closely divided the shaft from top to bottom; by this means we have a regular current of fresh air, last report we have had a very hard bar of rock in the extreme bottom for about 5 ft. thick and 2½ ft. in length; we have been obliged to cut the whole of it, but I am pleased to say we have got clear of the rock, and are now in a facting formation.—Stamps: I shall commence the erection of a stamp in about a fortnight, and I shall get it to work with as little delay as possible.—Sao Vicente: I have got the water out of the old mine at Morro das Almas, and have made a very careful examination of the workings. The depth of the mine is 198 ft., by about 80 ft. in length; the width of the workings varies from 9 to 20 ft. I consider our prospects here to be very good.

**REINE.**—Nov. 14: Schmelter: The new 27 cross-cut, north of Henry's shaft, was started on the 1st inst., and very good progress is being made. The ground is more favourable for driving than the corresponding ground in the 27. During the week a pair of men will commence cutting a plate on the north side of the shaft.

**VAL ANTIGORIA (Gold).**—Thomas Roberts: The incline shaft was sunk in October 7½ metres, and is now under the 20 1½ metres, and we hope to get down for a 40 ft. level by the end of next February. The lode in the 30 end, driving south, is small, yielding about ½ ton of ore per fathom; towards the bottom of this end the lode has more cavities, and has a much better appearance for ore. No. 1 stop, in back of the 30, yields ¼ ton per fm.; No. 2 stop, 2 tons; and No. 3 stop, 3 tons. The stops in back of the 20 are worth 2½ tons per fathom. We amalgamated for October 55½ tons, which produced 34 ozs. 8 dwts. 22 grs. of gold. The provision of mill-stones for the winter months has been delivered.

**PESTARENA UNITED.**—Consigned yesterday to Signor C. Menozzi the gold for October, one ingot from Pestarina, obtained from 128 tons of ore, weighing 86 ozs. 17 dwts. 21 gr.; and four ingots from the Val Toppa Mine, 261 ozs. 11 dwts. 3 gr., from 564 tons of ore; Total, 448 ozs. 28 dwts. 24 gr. of ore.—Mines: The winch-shaft sinking under the 33 in Aquavite yields 5 tons per fathom, worth 8 dwts. per ton. Good progress was made last week in hauling away the old stuff lodged in this level. The lode in the 23 end south yields 6 tons per fathom, worth 10 dwts. per ton. No change in the cross-cut west.—Pachera Mine: The 55 end north is being cleared by a small pair of men, the 45 end driving south towards Pozzono continues to yield good stones of ore. The 33 end north, on No. 5 lode, is poor. The stop in back of the 33, on No. 2 lode, yields 7 tons, at 10 dwts.; the north stop in bottom of this level, 3 tons, at 10 dwts.; and south of cross-cut 5 tons, at 10 dwts. The stop in back of the 45 yields 6 tons, at 12 dwts.; and the stop in the bottom 4 tons, at 16 dwts. The stops in the bottom of the 20, near the boundary winze, yields 4 tons per fathom, at 15 dwts. per ton.—Val Toppa Mine: We are pleased to report of an important improvement which has taken place in the end south in the side lode in Zero level; by cutting into the eastern side of the level we are, up to the present time, in 2 ft. A trial made of this ore shows it to be worth 1 oz. 5 dwts. per ton. We are clearing and securing the old Zero level, with a good pair of men, as it is to get further south to commence another cross-cut west to the side lode in Zero level. The lode in the end driving south on the western part of the quartz lode yields 6 tons per fathom, worth 12 dwts. per ton; the winze in the bottom of this level yields 10 tons per fathom, at 15 dwts. The winze in the bottom of No. 2 level, on this lode, 10 tons, at 9 dwts. Nos. 1 and 2 stops in back of No. 2, on the flat lode, are diminished in value. The winze on this lode under No. 2 yields 5 tons per fathom, worth 15 dwts. per ton. We have set new stops east of winze, worth 12 tons per fathom, at 12 dwts. The stops in the bottom of No. 2, north and south of winze, on the new lode, yield 4 tons per fathom, worth 10 ozs. per ton; the stop in back of No. 2, at 15 dwts. A winze in bottom of No. 1, on the side lode, yields 4 tons, at 10 dwts. The intermediate end south between Nos. 2 and 3 levels is not looking quite so well as when last reported on. The rise in the back of side lode No. 3 yields 5 tons per fathom, worth 12 dwts. per ton; and the stop in the bottom yield 8 tons, at 14 dwts. In the second cross-cut we have a change of ground, with veins of quartz carrying lead, and we expect shortly to reach a good lode.—THOMAS ROBERTS.

**LANESTOSA.**—Spain, Nov. 8: Asuncion: At this place we are clearing a run in San Tomas adit, and are now in 17 metres. There is some appearance of our being nearly through the choke, when, from all accounts, the lode will be clear to the end. It is now clear from the month that one lode has been cut through, and it is said lead was raised from it. Accounts vary as to the distance to be driven to intersect the main lode. I do not think it can be great. As soon as the end is reached a section shall be sent, showing this ground. At surface, the main lode spoken of is large, and very promising, and considerable quantities of both calamine and lead have been raised from it. As shown in cut, 100 lbs. has been paid to cut a cart-road to the mouth of the adit, so that timber, &c., may now be carried there direct.—Augustine: Here we have commenced to clear out the shaft. Not knowing the exact position of the shaft, we have to clear out a large quantity of rock, to reach, if possible, a point where something of the outline can be seen. From all appearance the shaft has not gone together far down, so that, once reaching the old framework unbroken, we shall be able to proceed with facility. This shaft, as before described, is in the centre of the chief calamine deposits, so that, reaching the bottom, we shall at once proceed to develop this deposit, and also a parallel one, to which there is a cross-cut. This work, I consider, will be a most satisfactory trial of the calamine veins at the most favourable points. The work at the present time has been retarded by the want of timber, and should it not come in soon, it will be necessary to get a small sloop-load from Santander.—Santa Lucia: In this mine we have no work, but a tribute pitch on the flat bed, where calamine and lead are being raised at a small profit. The ore is generally found in pockets, and at present it is looking better than ordinary. As we get men I should advise the continuance of an inclined level on this bed, to prove it further under the cap of sandstone which overlies it. The ancient workings on it are very extensive, and a good quantity of ore has been raised from it in the year.—Beyrout: A tribute pitch for calamine is all the work doing here also; it is being raised at 60 Rs. or 12s. 6d. per ton. About 7 tons per month has been raised for the past year, and the same quantity will probably be continued for some time to come. A cross-cut adit, to come under the line of the main deposit, will be driven occasionally, when the weather prevents the men going to the top of the mountain.—La Aurora: Two men have been working on tribute here on the back of the main lode, and at present in the end of the stop there is a good show of lead, the lode being 4 ft. wide, and running fully 1 ton per fathom, but the place is small and shallow, so that not much can be made for it yet. Further south we have taken up a deep adit on this lode, which will be pushed forward directly the timber expected comes in. The adit will be driven on the lode.—La Luisa: In this sett we have been opening on the back of one of the principal lodes through ancient works; some 5 fms. depth has been reached without seeing the lode, thus showing the old works to be deeper than anticipated, which may be taken as a favourable omen, especially so in that we have found a good many stones of ore, and the debris. Two deep adits have now been taken up, to prove the largest and most promising lode—one called La Ventura goes to the south, and the other Cubillo adit; the latter will be on the lode direct, but the other will have a short cross-cut, and will intersect two or three lodes before reaching the one on which we propose driving.—La Flora: Here a deep adit has also been started, which, in 20 fms. of drifage, will reach a point where the lode has a most promising appearance at surface, being over 8 ft. wide. I feel very sanguine of having ore here quickly.—Gianrafo: A deep adit is being commenced at the south end of the sett, which will have about 8 fms. cross-cut before reaching the lode. Appearances at surface are very promising, there being two large lodes within 10 fms., that have extensive old works.

**LINARES.**—Nov. 8: The lode in the 85 fm. level, west of Crosby's shaft, is small, with stones of ore, yielding ¼ ton per fathom. In the 75, west of Crosby's shaft, there is a good lode in the back of the end, producing ¼ ton per fathom. In the 75, east of San Francisco's shaft, the lode is small and poor. The lode is small in the 75, west of San Francisco's shaft, consisting of quartz, with good stones of ore, yielding ¼ ton per fathom. The lode in the 65, west of San Francisco's shaft, is unproductive at present. The lode in the 45, west of San Francisco's shaft, continues very regular, with occasional small stones of ore, yielding ¼ ton per fathom. There is no improvement in the 45, east of San Francisco's shaft. The stops yielded very well in the past month, and are without any alteration requiring remark at present. The works at surface are going on very regularly, and the machinery is in very good condition. We estimate the raisings for November at 200 tons.—Quintanilla Mine: The lode in the



Colonel T. Winchester, in his work upon "Gold and Silver Mines," for these company, of the one part, and Henry Child, of the other part.



## BRITISH MINES.

**CORNBREE.—**W. Jones, Nov. 15: In the 18 and 25, on yellow ore, the men have been removed from the south stopes of the 18 to the 25, at Field's shaft, where the stope of ore is now very profitable. In the 36, at Tracy's shaft, on yellow copper ore, there is no alteration to report this week; we have a good stope of ore. In the 25, at Barry's shaft, on grey and black ore, our workings are turning out a large quantity of ore; we have room for additional hands if obtainable. In the 35, east of engine-shaft, on yellow ore, the yield from this

are much the same as when last reported in the former some open and favourable ground is presenting itself; the lode is about 6 ft. wide, and worth from 30% to 40% per fathom for lead and blende. In the 220 fm. level end we have at last tapped what I believe to be the regular and proper feed of water from the north ground, and the lode is improving in appearance, and likely soon to become productive. The 210 fm. level end is being driven on a part of the lode worth about 40% per fathom; the slopes in the roof of this level are worth 100%.

lead ore on the leader or footwall now, which I expect will soon open into a productive lode—set to four men, at 160s. per fathom. The 62, east of cross-cut, and west of the shaft, has been set to two men, at 160s. per fathom; the lode



here produces  $\frac{1}{2}$  ton of lead ore per fathom. The slope over the back of the 22, west of the cross-cut, is set to ten men, at 75s. per fathom; the lode producing  $\frac{1}{4}$  ton per fathom. A new slope over the back of the same level, east of the cross-cut (the old slope is completed, as can be seen on the section), has been set to four men, at 70s. per fathom; the lode here produces 1 ton of lead ore per fathom.

**NEW BELDON.**—J. Barron, Nov. 6: At Readon the Fellgrove vein continues to increase in strength in the plate as we drive east; we have slender stringers in the plate running in from the north-west to south-east, which, so far, is taken up with the Beldon lode at the south side of the level; this lode is still (at least) a portion of it overlying much to the south, and is likely to set up into the sill on the south side of the level roof; the other portion of the vein in the sill along the roof at the north side of the level contains ore, but not to value. The several parts of the vein I have no doubt will join together in the sill further to the east; the ground is less favourable for driving since last; the lode on the south side of the level is making strong riders up into the plate. In the west level the Fellgrove vein shows a little more strength since last report, and contains a little ore in the plate and at the bottom of the sill, but not to value. The old Shildon vein, at the roof in the Beldon level, is from 2 to 5 ft. wide of vein-stuff, with a little improvement for ore since last report; the work producing stuff with a crusher for dressing, and I strongly advise a 10-ft. wheel across the shaft mill rollers to be erected at the Beldon level as soon as possible; the expense of carting this work to the crusher would be heavy. The cross-cut from north string from forebreast of the Beldon level is very hard for driving, and is progressing but slowly.

**NEW BELDON.**—J. Barron, Nov. 13: In driving east at Readon the Fellgrove vein continues to increase in strength; at the bottom of the sill in the roof of the level the vein is from 2 to 10 ft. wide, of hard ridged vein-stuff, and spotted through with ore, but not sufficient ore to value. In the drift going west the Fellgrove vein shows a little strength since my last, with spots of ore, but not to value. In the roofs in Old Shildon vein in the Beldon level there is a little improvement for ore since my last, and the vein at present is 3 ft. wide, yielding work, which is being stored at surface for dressing. In the cross-cut from the forebreast of the Beldon level nothing is yet cut to resemble the string; the ground is hard for driving, and the first 6 ft. contract is not completed.

**NEW CLIFFORD.**—J. Mitchell, Nov. 16: The driving of the cross-cut north of shaft, at the 72, to cut Weston's lode, is being forced on. The end is letting out a large quantity of highly mineralised water; I believe we are getting near a course of copper ore. I would suggest the driving of the 26, east of engine-shaft, on Gooley's lode. We have a lode to the east producing tin work of from 4 to 5 cwt. to the ton of stuff, but cannot work these until the water is let down. I am certain good returns can be made at this point if prosecuted.

**NEW DALE.**—R. Nines, Nov. 14: The distance driven during the past week in the 75 north-west is 5 feet, altogether 26½ fms.; the vein appears to be undergoing a very great change, being much more mixed with foolion and soft spar, and is getting much more open and easy for driving. The rising back of the 44 is now 5 fms. above the back of that level. In a strong vein, and is undoubtedly a part of No. 3, on Johnson's lode, as it resembles in character the matrix of the eastern part of the vein. No. 3, on Johnson's, is much increasing in size, composed of clay and spar riders, and is yielding about the same quantity of lead per fathom. Holly Bank driven 5 feet, altogether 64 fms. 4 ft. 6 in., and is producing strong spots of lead ore, but the ground is still hard for driving, through the closeness of the ground. The water is not yet let off from the workings above.

**NEW HENSLA.**—R. King, Nov. 10: I said in my last that the ground was still in the influence of the cross lode, and rather unsettled, but to-day I have broken some good stones of tin from the lode; you shall know in a day or two if it continues or not.

**NEW HINGSTON.**—George Rickard, Nov. 16: We are making good progress in clearing the adit level on the south lode, and hope to get through the choke by the end of the week. We have broken some tinstuff from various places in the back of the adit, and find it good work for tin. All surface work is going on satisfactorily.

**NEW BOSHER.**—H. R. Odgers, Joseph Rule, Nov. 11: In consequence of two or three little ridges connected with the engine we have not been able to reach the 58 this week as we had expected. We have to-day set a cross-cut to drive south at the 46, immediately over where it is reported there is a bunch of tin at the 58, to four men, at 61s. per fathom. We calculate we have from 9 ft. to 12 ft. to drive. We have also set the 34 cross-cut to drive north by six men, at 71s. per fathom, to cut the north lode. Should we be fortunate in meeting with a good lode here it will be a fine thing for the future of this mine. At a few fathoms behind this cross-cut there is a large lode, which we intend stripping down to see if it produces much tin. The slope is getting on very well with the wheel-pin, and likewise with the lobby for taking off the water.

**NEW TRELAUNY.**—J. Truscott, Nov. 14: Setting Report: To drive the 60 west on the course of the lode 2 fathoms, stent by four men at 71s. measured 2 fms. 1 ft. 6 in. wide, chiefly quartz. To drive the 60 east on the course of the lode 2 fathoms, stent by six men, at 121s. per fathom, measured 2 fms. 3 ft. 6 in. wide, composed of quartz, intermixed with prlan, and a little mundle.

**NORTH CROFT.**—Joseph Vivian and Son, William Thomas, November 16: Reeves' lode, west of Peckham's shaft, the lode produces a little tin. In the 208, and now down 8 fms., the lode produces a little tin. In the 208 and west lode has a promising appearance, and will produce 1 ton of copper ore per fathom. In the winze, sinking under the 140 west, the lode is 4 feet wide, and opening tribute ground.—South Lode: In the 208, both east and west of cross-cut, west of Peckham's shaft, the lode produces low-quality tinstone. The same remark is applicable to the 196 and west. In the winze, sinking under the 196, the lode is worth 161s. per fathom. The slopes and tribute pitches are producing their usual quantities of tin and copper ore.

**NORTH DOWNS.**—W. Pryor, Nov. 15: We are getting on very well in pulling up the materials, and hope to finish drawing the pitwork by Tuesday or Wednesday next. We sampled 13 tons of copper ore this week. There are two men and two boys at Peever breaking what tinstuff they can; and we expect to sample about 45 tons of stuff next week.

**NORTH KINGSTON.**—W. Metheerell, Nov. 16: The lode continues of the same size and character as last reported.

**NORTH POOL.**—Nov. 16: I have no change to report in Ballarat shaft; the lode is still of fine character.—Engine-Shaft: We shall commence to sink this next week.

**NORTH SNAILBACH.**—J. T. Davies, Nov. 16: I have commenced to open No. 1 adit, and I have found the entrance, and shall be able to get inside the level to-morrow; and from reports I hope to see some quantity of lead. I have been told that they washed out from one place there 20 tons of lead ore near the junction of the north lode and the north-west lode. I have some very nice shoots of lead in the new vein. I have all things ready now to put the ladders in the 13 ft. shaft.

**NORTH TREKERRY.**—R. Pryor, T. Jenkin, Nov. 15: Owing to the late heavy falls of rain, and having had some late caused by the pitwork, we have been able to do but little in the bottom levels, and in consequence of which we have not been able to draw to surface the copper ore broken in the 120, which is fully 150 tons of our usual quality, but a portion of which we hope to send to surface shortly. The character of the lode in all the levels under development is much more encouraging than for some time past, and all that we are in want of is sufficient machinery in order to lay open a valuable property. Now we have the new ground added, which has been under consideration for the past two years.

**OLD BATHOLDS.**—A. Waters, Nov. 16: The mine is forked of water to the 21, or bottom level, and the shaftmen are busily engaged timbering and securing as well as dividing the shaft from adit downwards. Extensive workings have been carried on upon the lodes in the 12; but, owing to a choke south of the cross-cut, we have not yet been able to explore the main lode south of the greenstones.—A. in the ground called the productive slaty beds. We are pushing on with the pulley-steps, &c., and the lode produces a little tin. In the 144, we are sinking in the winze, and are near the mine. We cannot get down to inspect the 22 until the shaft is secured, and ladders fixed, which work is going on simultaneously, and will have so far progressed by Monday or Tuesday next as to admit of our going to the bottom of the mine. The engine is working fairly. The house over the engine is nearly erected. Other surface work is making fair.

**OLD TREBUKGETT.**—Nov. 16: In the 40, and south of the engine shaft, we have cut in west through the other part of the lode 6 ft., and are not yet satisfied we are getting through it. It is producing rocks of mundle and white, and is well charged with silver-lead ore, worth for the latter about 201s. per fathom. A portion of the lode is still standing by the side of what we have driven through, which we are stripping down. It is a splendid-looking lode. The other parts of the mine are much the same as last report. We sold yesterday two parcels of blende ores, two parcels of silver ore, and two parcels of silver-lead. The blende ore, No. 1 (computed), 6½ tons, at 31s. 6d. per ton; No. 2 (computed), 6 tons, at 21s. 14s. to Messrs. Vivian and Son. No. 1, silver (computed), 18½ cwt., at 151s. 6d. per ton; No. 2, silver (computed), 18½ cwt., at 151s. 6d. per ton; No. 1, silver-lead (computed), 5½ tons, at 231s. 10s. 6d.; No. 2 (computed), 2 tons, at 131s. 6d., to Messrs. Sims, Williams, and Co. We are again dressing and hope shortly to have another parcel ready.

**PARYS.**—T. Mitchell, Nov. 16: There is no material change in our bargains since my last. The 100 east, on S. B. course, continues to yield 2 tons of copper ore per fathom. The 100 cross-cut south is now getting into similar ground as when we first cut the copper on the Carreg-y-doll lode at the 90. At Morford we have been clearing the adit level, for the purpose of having a free outlet for the water. The masons are making good progress in building the loading for the engine. We have commenced weighing off the ore sold on the 4th inst.

**PENHALLS.**—S. Bennetts, W. Higgins, Nov. 11: The 70, west of the engine-shaft, is without change. The slopes above this level, and below the 60, also continue much the same, worth 201s. and 81s. per fathom respectively. The 54 west is worth 181s. to 201s. per fathom; and the 50, west of the great cross-course, 111s. per fathom. The 17, west of Sarah's, is worth 81s. per fathom, and the slopes at this shaft continue just as last reported. The different cross-cuts are without any further discovery.

**PENNERLEY.**—W. Nancarrow, J. Delbridge, Nov. 15: The slope in the 120, east of engine-shaft, on Big Ore lode, is worth 2 tons per fathom. In the 130 west, on the Big Ore, the lode is producing occasional stones of ore. In the 120 west at present the lode is small and poor, having passed through the late bunch of ore. In the 80 cross-cut, towards the Warm Water lode, we are still making good progress, but up to the present time no lode has been cut, but we calculate we are near the lode, as there is a little water oozing through the ground. The lode in the 70 west, on Big Ore, is worth 2 tons per fathom. This ore is making below the 10; this shaft is filled with stuff, and therefore, I could not examine the lode.

**PERRAN WHEEL VIRGIN.**—G. Oates, Nov. 11: The following is a copy of our setting:—Sir Frederick's engine-shaft to sink below the 26, by 12 men, at 251s. per fathom. This shaft is sunk 13 fms. below this level, and we hope in about four weeks from this time to be down to the 40, when we shall at once commence to drive to cut the lode. The 26 to drivesouth, by four men and four ft. at 41s. per fathom; the lode is 5 ft. wide, composed of capels, mundle, and a little lead. The 16 to drivesouth of Pryor's shaft, by three men and three boys, at 31s. per fathom; the lode is in a disordered state, being influenced by a slide,

The 16 to drive east of Pryor's shaft, on the east and west lode, by three men and three boys, at 31s. per fathom; the lode is 2 ft. wide, composed of mundle, blende, and lead, but not enough to value—a very kindly lode.

**PERKINS BEACH.**—W. Nancarrow, C. Davies, Nov. 16: In No. 2 counter we are still going down with all possible speed. The lode is producing some splendid stones of ore; and looking at the character of the lode altogether, we think we are near a big bunch of ore. The west breast, on Chimney-pipe, still continues to look well, worth 2 tons of ore per fathom—a most promising lode. We are pushing on the south cross-cut with a full party of men, the ground in which still continues hard, mixed with lime-spar—congenial ground for bearing lead ore when the lode shall be met with. We have worked the engine on pump for a short time, and it works well, but we have a little addition to make to the chimney, after which we hope to go on all well.

**PERRAN WHEEL VYVYAN.**—D. R. Stickland, Wm. Perry, Nov. 16: The counter lode we have opened up for a considerable distance, but at present are at fault in tracing it to our eastern boundary. We have cut an east and west lode in searching for the counter underlying north, and from this it appears to be what is called No. 5 lode in the adjoining mine, and we are now trying to cut it south in the lane where you entered into mirey bottom fields. We have had to stop for good weather for some time.

**PLYNIMON.**—John Paul, Nov. 16: The engine-shaft is going down in a good character slate rock towards the 26 fm. level. The lode in the 34 fm. level east has a vugh in the centre at present, which materially assists the drawing, and better progress is now being made than for a long time past. The lode is 20 in. wide, of carbonate of lime, with spots of lead and copper ores. In the 12 east the lode is without ore to value just now, but may open out again to be worth 1 or 2 tons per fathom at any moment. The cross-cut in this level towards the north lode is driven 2½ fathoms in favourable ground. In the winze under this level a life of pumps, which we report as being worked by a chain, &c., from the engine-shaft. The winze is in course of sinking again, and when deep enough for the 24 fm. level driving will be commenced west to meet that level, and also eastward into the long run of ore going down in the bottom of the 13 fm. level. The slopes over the 12 fm. level continue to yield about 15 cwt. of lead ore per fathom. We sampled 40 tons of lead ore again for the month, to be sold on the 21st inst.

**PRINCE OF WALES.**—J. Gifford, F. Phillips, Nov. 14: In the 30 east the lode is large, composed of capel, arsenical mundle, and peach, with a little tin intermixed; west about 1 ft. wide, capel and prlan, and in the 37 west driving is commenced a life of pumps, which we report as being worked by a chain, &c., from the engine-shaft. In the 65 west the lode is 1½ ft. wide, worth for copper 61s. per fm., and promising further improvement.—Tin Department: There is no improvement in the slopes or ends. The slopes for copper, and also the tribute pitches, are as last reported. We are getting on with dressing both copper and tin for the samplings. We have not succeeded in letting down the water in the shallow adit in the Silver Mine.

**PRINCESS OF WALES.**—J. Gifford, Nov. 13: Having been requested by some shareholders to inspect the property and give an opinion on the future of the mine, I now beg to offer a few remarks. First, I would strongly recommend the cross-cut north in the 50 fm. level being continued with all possible speed by a full party of six men, to commence on Monday morning at 1 A.M., relieve in place up to Saturday night 10 P.M. so as to reach the lode in the north or new shaft at the earliest possible moment, which, from its bearing and character, I have no doubt is the Prince of Wales main lode, and about the same depth the best course of ore was found in that mine. I also notice that the ground is becoming easier as you approach towards the lode, which I consider a very good omen for its future success.—Princess of Wales Lode: As the ground in the engine-shaft in the 50 fm. level dips south much faster than the 100, it is very hard, and not very congenial for the production of mineral, I would suggest that all operations on the course of the lode at this point be suspended for the time, and apply the east to sinking the shaft, when I think you may meet with easier strata of ground, when, judging from the appearance of this lode, both at surface and in the 20 fm. level, which is very good, I have no doubt good results will follow.

—G. Rickard, Nov. 16: The water is still coming from the cross-cut driving north in the 30, and level ore per fathom. In the 15 fm. level winze, on new lode, the lode continues large, of a very promising appearance, and producing good stones of lead ore. The men here I have put to rest against the new shaft, so as to communicate as early as possible. In the new shaft the lode is large, and producing good stones of lead ore. The weather for the last week has been very rough, and much against surface work.

**ROCHE CONSOLS.**—T. Parkyn, Nov. 15: We are raising tinstuff from four lodes, and sending it direct into the camps. We have two places as open cuttings; the lodes are yielding saving work for tin. Next week we shall sell the first batch, and I will do my best to get a favourable price, &c.

**ROMAN GRAVELS.**—A. Waters, Nov. 16: The 35 cross-cut, east and west of the old engine-shaft, goes on regularly. The 80, south of the shaft cross-cut, on Roman vein, is getting into a wider lode, which looks like the commencement of the productive ground seen in the 65. The 80, south of Glover's cross-cut, is still in a good course of lead ore. The 65, north of No. 2 cross-cut, is not yet holed to the ladder winze, but nearly through to it. The winze below this level continues to go down in a splendid course of ore. The rise above the said level is also in a rich run of ore. The two slopes in the same level, rich of lead ore. The engine here works admirably, and yet not even the smell of smoke from the chimney, the draught is so good. The new south engine-shaft is going down favourably. We have to-day sold 125 tons of lead ore, at 121s. 8s. per ton.

**SOUTH CONDURROW.**—Joseph Vivian and Son, Henry Abraham, Nov. 15: The water is still in the 82, but we are preparing some alterations in our pumping-gear, which we trust will enable us to master it again. In the 71, west of King's shaft, we are carrying a width of 7 ft. of the south part of the lode, which we estimate to be worth about 351s. per fathom. In the 71, east of cross-cut, west of King's shaft, we are carrying a width of 7 ft. of the south part of the lode, which we estimate to be worth about 351s. per fathom. In the 61, east of cross-cut, west of King's shaft, we are carrying a width of about 8 ft. of the south part of the lode, which we estimate to be worth about 351s. per fathom. The rise over this level, for a width of 7 ft., is worth about 151s. per fathom. In the 51, east of cross-cut, west of King's shaft, we are carrying a width of about 10 ft. of the south part of the lode, which we estimate to be worth about 601s. per fathom. In the same level, west of cross-cut, we are carrying about the same width, which we estimate to be worth about 401s. per fathom. We are rising and stopping in the back of this level, where the lode is worth about 301s. per fathom. We are sinking a winze under the same level, to communicate with the rise from the 61, the lode being worth about 271s. per fathom. In the 10, east of new shaft, the lode is 2 ft. wide, worth about 71s. 10s. per fathom. In all other points of operation there is nothing new to remark upon.

**SOUTH HERODSFOT.**—W. Goldworthy, Nov. 16: The men are making good progress in driving the 100 fm. level east, but there is no change in the character of the ground to call for any remark. In the 70 west the ground is harder. I have not put on the extra hands here yet, but will do so as soon as rise.

**SOUTH MERLYN.**—Nov. 16: I am pleased to report that the tribute pitches in the 80 and 100 yard levels have much improved since my last report. There is no other change.

**SOUTH PLYNIMON.**—John Walters, Nov. 15: The engine-shaft is down 23 fms. 0 ft. 6 in. below the 10, and in a good channel of ground; fair progress is being made. At the 10, driving west on the course of the lode, we have driven 21 fms. 3 ft. 6 in. The part of the lode carrying is from 4 to 5 ft. wide, composed of capels, &c., and is well charged with silver-lead ore. The lode is certainly encouraging for deeper levels. We are now coasting on the back of another lode about 300 fms. to the north of the present workings, which, so far as seen, has a very kindly appearance.

**SOUTH WARD.**—Thomas Foote, Nov. 14: The lode in the 40 south still looks very promising, composed of capel, quartz, and lead. Water is still coming freely from the lode. There is no change to notice at the engine-shaft in the 40 fm. level.

**TAMAR VALLEY.**—J. Goldworthy, Nov. 16: In the 37, driving south of Weston engine-shaft, good progress is being made. The lode is 3 ft. wide, of a favourable description, and produces saving work for silver-lead. No other change to notice since last reported on.

**TANKERVILLE.**—Arthur Waters, Nov. 16: The lode in Watson's shaft, now 8 fms. below the 110, continues to maintain its wonderful character for richness and so forth, and we feel certain about the steady gradual improvement which we say is going on in depth, and which will make Tankerville a great and lasting prize. The slopes, &c., are without change since last reported on. The 42, and sinking below the 22, in connection with Watson's shaft, goes on successfully. Surface operations as usual. Yesterday we sampled 100 tons of lead ore, for sale on Tuesday next.

**TRELEIGH WOOD.**—Geo. R. Odgers, Nov. 11: We have forked the water in the engine-shaft 12½ fms. below the adit; we have 2 fms. more to drop to reach the stuff, which will be done at once; we have not yet seen any cross-cut to the lode from this shaft. At Windmill shaft the water is also drained 2½ fathoms below the 10; this shaft is filled with stuff, and therefore, I could not examine the lode. We shall at once case the engine-shaft, and clear up so fast as we can to reach the 24. The lode in the adit from the stuff sampled and assayed is worth from 121s. to 151s. per fathom, and I think, so far as we have yet seen, the prospects are good for making a valuable mine.

**TRELEIGH WOOD.**—G. R. Odgers, Nov. 15: The shaftmen are engaged putting divisions in the engine-shaft, and casing it from surface to 12½ fathoms below the adit; we have also put in bearers for dropping the lift below. The casing will probably take up on Tuesday or Wednesday, when we shall commence clearing. We shall stop on Saturday as far as the stuff (3 fms. more), which we think will be fork by Monday morning. I am informed there is a cross-cut from the shaft to the lode in the 15, and if so we shall lose no time in clearing it, so that we may examine the lode.

**TERRAS (Tin).**—M. Rickard, Nov. 16: The ground in the new engine-shaft is more compact than it has been, but not detrimental to the sinking. The slope in the bottom of the Quarry, on elvan No. 1, value 31s. 10s. per cubic fathom. The lode in the level, west on new east and west lode, worth about 31s. 10s. per fathom; driven at 32s. per fathom. The lode in the level, south on new counter lode,

worth about 31s. per fathom; driven at 20s. per fathom. The slope in back of shallow level, on new east and west lode, worth about 31s. per fathom; worked at 20s. per fathom. The new elvan, No. 2, worth about 31s. per fathom; worked at 7d. 6d. per fathom. Nothing has been done at Edwards' for some time past in consequence of the water. The 40 fm. level, driven east of shaft, the lode varies in value from 20s. to 401s. per fathom; the cost of driving on an average has not exceeded 50s. per fathom, and the cost of stopping the same will be about 25s. to 30s. per fathom; the ground requires little or no timber. We fully calculate upon a further improvement in the lode at the 30 fm. level. All our surface works are being urged on, and arrangements are being carried out for the additional stamping power.

**VAN CONSOLS.**—T. Corfield, Nov. 16: No change of any importance has taken place here since my last report. All underground work is being pushed on as fast as possible.

**WEST CARADON.**—N. Richards, Nov. 15: Marina's Shaft: Allen's lode, in the 66 fm. level, west of cross-course, will produce 1 ton of copper ore per fathom; east of cross-course we have cut a cross-branch, which has disordered the lode a little for the present, but I am pleased to say it is making all right again on the other side, now worth 1½ ton per fathom, and likely to further improve. Two slopes in the back of this level will yield in the aggregate 5 tons per fathom. Riale's lode, at this level, is producing stones of ore, but not sufficient to value. No. 1 rise, in the back of the 42, is unproductive. No. 2 rise will yield 2½ tons per fathom. There is more water issuing from the cross-cut south, which goes to show that we are nearing another lode or branch. We are making good progress in clearing east adit. We sampled yesterday (computed) 156 tons of copper ore.

**WEST ESCAIR LLE.**—R. Harvey, Nov. 16: Hamilton's engine-shaft is in a regular course of sinking under the adit. The lode in the shaft is looking promising for a very productive one as depth is attained. But we are a great increase in value from the level since I last wrote you, and principally coming from the south part of the lode, which is the most productive part. I therefore look forward to a good course of ore when we come to cross-cut through the lode in our next level. We are pushing on the building of the drawing-machine house with all speed, which will take about a week from this time to accomplish, when the carpenters will at once commence to erect the machine. There is nothing new in any other part of the mine.

**WEST GODOLPHIN.**—J. Pope, Jun., Nov. 14: The counter lode in the 80, driving north-west of Pressure shaft, is 2 ft. wide, worth full 401s. per fathom. In the 30, driving south-east of Pressure shaft, we have intersected one of the Great Work engine lodes; it is 14 in. wide, rich tinwork. I have put the men to work to ascertain its value as it gets away from the counter lode. The other parts of the mine are without change worthy of remark.

**WEST JEWELL.**—J. Mitchell, Nov. 16: We are pushing on with all possible speed to reach the 42 (100 fathoms from surface), and are to-day fixing another pump. To-morrow we shall resume sinking, and hope to reach the 42 next week, and immediately proceed to clear the 30 and 42, and expect to largely increase our return of tin from those two levels. The tributers are breaking some rich work for tin. Our sale at the beginning of next month will be good.

**WEST MARIA AND FORTESCUE CONSOLS.**—Wm. Skewton, Jas. Donnal, Nov. 15: West Maria Lode: The north part of the lode carried in the 82, east of Willesford's shaft, is still looking well, and worth 181s. per fathom. The pit will be resumed below. In the 71, east and west, the drainage is by the side of the lode, and no lode has been taken down in the winze sinking in the bottom of the level since I last wrote you. In each of these places we expect it will be equally as good in the next taking down as it was when last worked. The three slopes in the back of this level are worth on an average 201s. per fathom. The lode in the back of the 60 east is worth 101s. per fathom, and the two slopes in the bottom of this level, west of shaft, 121s. per fathom each. The ground in the 60 fm. level cross-cut, north-east of Maria engine-shaft, is very wet, an indication that we are near the lode.

**WEST STIPPESTONES.**—Edw. Wardman, Nov. 15: This day I have set the shaft to nine men, 20 fms., to timber, case, and divide same, with footway and a level for the water, and the said shaft to be 2 ft. wide, as usual, 9 ft. by 5 ft. inside the timber. It will take the men the remaining part of the week to complete the present length, and case and timber the same; when this is finished we shall push the shaft on down with all the energy we are possessed of. We have nothing fresh in any other places to inform you of. The lode in the shaft is still producing small branches of lead, blende, and copper ores. The south adit is still in very hard ground indeed, in consequence the progress is slow; the end is letting out water. In the north adit winze we have some stones of lead 4 or 5 lbs. weight, mixed with carbonate of lime and spar, as promising in character as any mine can produce.

**WEST TANKERVILLE.**—Arthur Waters, Nov. 16: Nothing new on the Wood lode in the 48, south of old engine-shaft, nor in the 25, south of Lawrence's cross-cut, since last reported on. The slopes in back of the 10, on Cornish lode, are just as for some time past. The California engine-shaft is opening productive ground below the deep adit level. The winze below that level south, as well as the slope in the roof of the level, are yielding good ore stuff. We have completed our arrangements, and are now winding out of the above shaft with the crusher engine, in the winze, in the adit south of the boundary. South boundary shaft, now 29 fms. from surface, is going down under very favourable circumstances, the water being less than we had ever seen it before. This is accounted for by the fact that a good ore lode is cut into near the bottom, which is a loose, vuggy character, and evidently lets off the water. A barrowful of rich orestuff was broken from the lode and sent to the offices at the mine to-day. This discovery is very important, being immediately adjoining Roman Gravel, and can, eventually, be worked expeditiously from the levels already driven from that mine into West Tankerville. The Lawrence is worked by flat-rods out of Roman Gravel, the counter lode on both sides of the boundary.

**WEST WHEAL TOLGUS.**—Nov. 15: There is nothing new to notice in any of the ends or slopes since our last report, except in the winze below the 65 fm. level; it is down about 10 ft. below the level, and will yield from 5 to 6 tons of very good ore per fathom.

**WEST WHEAL TREMAYNE.**—S. Roberts, Nov. 14: We have not taken down any lode in the 10 fm. level end since last report; in places where we have cut into it appears to be a kindly lode, producing a little tin; the ground at present is favourable for driving. In the 20 the lode is rather small and poor, but producing tin, and yielding much water; the ground in this level still requires timber. No change in tribute pitches.

**WHEAL BULLER.**—James Inch, Nov. 11: Hocking's shaft, sinking under the 114 fm. level, is not producing quite so much tin as it has been; now worth from the assay to-day full 401s. per fathom, but the lode is over 6 ft. wide, and presenting a very promising appearance. I think it will shortly improve again. In the 114 fm. level, driving west, the main part of the lode has not been taken down for the week. The 114 fm. level driving east is getting near the cross-course, and is disordered by its influence; producing a little tin, but not of much value. All the other bargains throughout the mine are without much alteration since last Wednesday's report.

—James Inch, Nov. 15: Hocking's shaft, sinking under the 114 fm. level, is worth for tin full 401s. per fathom; the lode at this point is presenting a very promising appearance. The 114 fm. level, driving west, is worth for tin 141s. per fathom; the lode at this point is split in two parts by a horse of granite. The 114 fm. level, driving east, is nearing the cross-course, and is split up and disordered by the influence of the lode, the 102 fm. level, west of the shaft, is worth for tin 121s. per fathom. The 60 fm. level, west of the shaft, is worth for tin 121s. per fathom. The 60 fm. level, east of the shaft, is worth for tin 121s. per fathom. The 60 fm. level, east of the shaft, is worth for tin 121s. per fathom. There is nothing new in any other part of the mine.

**WHEAL CREBOR.**—J. Goldworthy, Nov. 15: There is no change in the several tuwork bargains. The driving is continued by the side of the lode. The tribute department, on the whole, is much the same as when last reported.

**WHEAL FRIDSHIP.**—Nov. 13: Bennett's lode. In the 150 fathom level, west of Whitburn's cross-cut, the lode is about the same size and character as last reported. In the winze, sinking under the 150 fm. level, west of Ward's winze, the lode is 3 ft. wide, yielding about ½ ton of ore per fathom, for the length of the winze (9 feet). In the winze, sinking under the same level, west of Crossman's winze, the lode is 2 ft. wide, worth 2 tons of ore per fathom, for the length of the winze (9 feet). Two slopes under the 150 will yield 2 tons of ore per fathom each. Two slopes in the back of this level will yield 1½ ton per fathom each; and one slope in the bottom of the 140 will yield 1½ ton per fathom. In the winze sinking under the 40 fm. level, east of Brenton's plane, on the north branch, the lode is from 18 to 20 in. wide, yielding saving work. No change in the 80 fm. level cross-cut, south of Curtis's, in the Giebs.

**WHEAL GRENVILLE.**—G. R. Rogers, W. Bennetts, Nov. 11: We cannot see any alteration to report in the 140 cross-cut north. The lode in the north shaft, sinking below the 110, is 2½ ft. wide, and worth for tin from 81s. to 101s. per fm. The lode in the 110 east is worth 101s. per fathom, and improving in appearance. The lode in the 101 east is 4 ft. wide, worth 351s. per fm. The lode in the winze sinking below the 100 is worth 501s. per fathom. The lode in the slope above this level (the 100 fathom level) is worth for the length of slope 1401s. per fathom. The lode in the 90 fathom level east is worth 251s. per fathom. The lode in the 80, east is again improving, producing good tin. The lode in the 66, east and west from cross-cut, is worth 101s. and 81s. per fathom respectively.—Dropper: The two slopes above this level are worth 121s. per fathom each.

—G. R. Odgers, W. Bennetts, Nov. 16: We cannot see any alteration in the value of the lode at the different places since our report of Saturday. The lode in the 10 east continues of the most promising character, leading us to expect a further improvement.

**WHEAL LUCY.**—W. Harris, Nov. 15: There is no particular change to notice since last report. The masons have so far completed the engine-house that the engineers may begin to put in the engine immediately. We are pushing on every department with all possible speed.

**WHEAL MARY ANN.**—J. Harris, J. Stevens, J. Skeat, Nov. 16: The cross-cut in the 250, at Clymo's shaft, is extended 44 fms. towards the lode. The lode in the 240 north is 2 ft. wide, worth 61s. per fathom. In the same level south the lode is 2½ ft. wide, worth 101s. per fathom. In the 230 north the lode is 2 feet wide, worth 81s. per fathom. In the 210 north the lode is 3 ft. wide, worth 61s. per fathom. In the 200 north the lode is 1½ ft. wide, worth 101s. per fathom. In the 190 north the lode is 2 ft. wide, worth 61s. per fathom. We are getting on from the slopes and pitches about the same quantity of ore as usual. We have this day sold our two parcels of silver-lead ore—No. 1, computed 45 tons, to Messrs. Weston, Son, and Co., at 211s. 6d. per ton; and No. 2, computed 38 tons, to Messrs. the Treffy Estate, at 121s. 6d. per ton.

**WHEAL RAMOTH.**—Henry Bennetts, Nov. 15: We have now cleared and secured the adit level 216 fms. In this distance the lode in places is 3 feet wide, and is highly mineralised, and everything bespeaks a profitable mine in depth. We shall at once commence clearing a cross-cut to the lode known as Old Ramoth lode, which in the former workings proved so rich for tin. The necessary buildings are nearly completed, and no time will be lost in getting the mine into a vigorous way of working. Considering the number of lodes, all of which produce tin in paying quantities, I anticipate that as soon as the engine and stamps are in full working order most profitable returns will be made.

**WHEAL RUSSELL.**—John Bray, Nov. 8: The lode in the shaft is 10 ft. wide, worth for copper ore 191s. per fathom. The lode in the adit, west of the shaft, is 40 east is worth 81s. per fathom. The 25 east is worth 61s. per fathom. The lode is worth 251s. per fathom. We are busy preparing for our sampling the end of this month, which will be about 190 tons.

**WHEAL UNY.**—William Rich, Matthew Rogers, Samuel Coad, Jun., Nov. 11: There is nothing new to report on at the 150 and 160. We are rising to back of the 140, east of Goodings' shaft, by the side of the lode, which is extremely wet. As the rise is held to the 150 we shall have good ventilation, and begin to strip it down. The 140, west of incline shaft, is worth 81s. per fathom. The



130 west is unproductive. The 130 end, east of Gooding's, is worth 10¢, per fm. The 120 east is worth 10¢, per fathom; 10 east, 20¢; 100 east, 12¢; 50 east, 15¢; 60 east, 10¢; 45 east, 7¢, per fathom. We are urging on the sinking of King's shaft, as well as Hind's new engine-shaft.

**WILLUGHBY.**—H. Nottingham, Nov. 15: We are making steady progress in sinking the engine-shaft from surface; the ground is rather better for blasting, but we have more water, so that we are obliged to sink with the lift of pumps now. We are now down 9½ fms. We have the centres of the big wheel set on the shaft, and are now busy getting them up the hill at the end of the wheel-pit. The wall-plates, &c., are fixed ready to receive them, so that I expect in a few days we shall have them in their proper place. After we get this finished we shall be able to go on much faster with the woodwork. The masons have nearly finished the stable and one end of the crusher-house, having built the stable to lay the crusher-house. I have been obliged to take away the men from the wall of the large reservoir below the Bod Lake, to help with the wheel castings. The men who have taken the bank are making steady progress. We have about one-half of the second portion of the tramway running from the rail for tramway have not yet arrived. We shall have the whole length of the bank ready for laying the rails in a week or nine days. We have one length of water-course cut yet above the mine to catch another stream of water that runs past the mine now without being of any service.

**SALE OF FOREIGN TIN BY PUBLIC TENDER.**—In last week's Journal an announcement appeared that Messrs. H. Bath and Son would sell at the Auction Mart, by public tender, about 250 tons of Straits Tin. Messrs. Bath and Son inform us that the result of the sale has been as follows:—At 144½, 5s. per ton, 5 tons; at 144½, per ton, 50 tons; at 143½, 15s. per ton, 10 tons; at 143½, 10s. per ton, 10 tons; at 143½, 5s. per ton, 10 tons; at 143½, 1s. per ton, 25 tons; at 143½, per ton, 60 tons; at 142½, 10s. per ton, 82 tons; total, 252 tons.

**OLD BOTTLE HILL.**—A company has been formed, in 1200 shares, to work on a more extensive scale one of the oldest and richest tin mines in Devon—the OLD BOTTLE HILL. The returns of tin altogether, it is said, have exceeded half-a-million sterling. The late company worked it for some years, but tin dropped to 40¢, per ton, so that it did not pay, and in 1869 the company was wound-up, and the mine and its materials sold to Mr. Jehu Hitchins, he and his family having been connected with the working of the mine for more than 60 years in its palmy days. Mr. Hitchins at once set about patching up the water-wheel and stamps, and let tin ground on tribute, and in this hand-to-mouth mode of working he has sold tin in the two years for 2083½, 16s. 6d., which has just about paid its way, and there are 7 tons of tin in the mine waiting to be stamped. But there is a large extent of good tin ground in the mine unworked, and as tin has risen nearly 30¢, per ton since Mr. Hitchins purchased the mine, he has formed a company for prosecuting more extensive operations, and every share has been subscribed for privately. The new company commences with a cash capital of 1200£, and 7 tons of tin on the mine. This will enable the stamping power to be doubled, explorations made, and the returns increased so as in a short time to yield good profits at the present price of tin. The agent writes that the sett is 1 mile in length on the course of the lode, and ½ mile wide, and there are five productive lodes in it. At the main lode, when tin was at 36¢, to 40¢, per ton, four men raised 10 tons of tin per month from the 40 fm. level alone. There is virgin ground on this lode 100 fms. in length, and as an adit runs through it for 60 fms. deep, it can be worked to that depth without machinery. The agent considers, if properly laid open, the mine will turn out good and profitable. "None better," he says, "in Devon or Cornwall."

**PEDN-AN-DREA UNITED MINES.**—These mines have at length declared a dividend. For many years they have been worked by shareholders whose patience and perseverance are at last crowned with success; this is mainly due to the untiring efforts of perhaps two important shareholders, for had they at any time wavered from their steady exertions in opening out these mines, or failed to supply the necessary heavy capital required, Pedn-an-drea would have been hopelessly closed. At present, however, these mines may be classed as one of the prizes of 1871, being in an extensively developed condition, and likely to make immense profits for ages to come. We congratulate the fortunate holders of shares, for having been so well held and perseveringly and steadily worked these mines have passed to a success directing attention which makes one wonder at the little attention that has up to now been bestowed upon them. We are glad to herald Pedn-an-drea as amongst the most promising of our dividend mines. Their first dividend has been 5s., which we think is but the prelude to a continuance of increasing amounts.

**VAN MINE.**—The long pending suit of "Murchison v. Batters" was decided on Tuesday, the Bill having been dismissed, but without costs.

**PERRAN WHEAL VVYAN.**—An important discovery has been made in eastening the eastern portion of this property, which is likely to lead to great results.

**POLBRENE (St. Agnes).**—This thriving mine made its sixth sale of tin on Nov. 7, in quantity over 4½ tons, for which the price of 84½, 10s. per ton was obtained—the figure realised at its fifth sale, on Oct. 10. Polbrene made its first sale on March 29 last; therefore, within barely seven months it has sold tin of the weight of 43 tons 4 cwt., 1 qr. 18 lbs. of the value of 3489£. 4s. 4d. It is now sending tin to the smelting-house every month, and did so this month and last. Its monthly sales will considerably exceed the cost-sheet. The call made on Oct. 27, and most promptly responded to by the shareholders, will discharge every standing liability, and as the plant is as near completeness as it can be there will be a good profit left for dividend on each month's working.

**ECLIPSE.**—The advices appear in another column. It is estimated that the present thirty stamps should return a profit of over 50,000£, per annum, calculating the reduction at 45 tons per day. It is proposed to increase the stamping power to 100 heads.

**EBERHARDT.**—For the information of shareholders who may not be able to attend the meeting of Monday, and to give time for consideration to those who do attend, the directors think it right to announce that they will propose resolutions authorising the issue of 6500 new shares, and that 2350 of them be offered to the shareholders at 15¢, per share, and that 2000 or other competent number of such 6500 be reserved and devoted for the purchase of the White Pine Waterworks, if thought fit; the remainder of such shares being left to be dealt with as the directors think fit, for the ordinary purposes of the company on capital account. Also to authorise the application or appropriation of the company's profits up to Sept. 30 to capital purposes.

**FLAGSTAFF.**—The Salt Lake Herald, of Oct. 29, says:—"The run for the week ending yesterday from one furnace of the Flagstaff Smelting Works, on Little Cottonwood, was 878 bars—weight, 105,120 lbs., or over 4½ tons, an average of 7½ tons of bullion per day, the same averaging over 3000 per ton. The Flagstaff Mine is raising and shipping to the furnaces about 30 tons of ore per day; but when the tunnel they are now running strikes the workings, which will be in a month or two, it will open up the road to an unlimited supply."

**CALIFORNIA.**—We clip the following from the New York Engineering and Mining Journal, of Oct. 31:—

"The Birdseye Creek and the Sweetland Creek claims, both situate in Nevada county, and sold not long since to English parties, have been yielding moderately well all the summer, notwithstanding the drought, whereby their productive capacities have been sadly crippled. Under their present excellent management their prolific character will be better shown after the advent of our fall rains; and there is little doubt but their future production will more than warrant the considerable advance in the value of the stock of those companies that has taken place since their organization. The Lagrange Ditch Company, composed mainly of wealthy San Franciscans, are constructing, at heavy cost, a large canal for conducting water from the Tuolumne river to an extensive gravel deposit near the town, which is to be worked by the hydraulic method, it having lately become apparent that these beds of auriferous material are by no means confined to that portion of the State where only the heaviest operations have as yet been carried on. From Nevada and adjacent counties their discovery has gradually spread southward, as far as Mariposa, and north into Trinity, Shasta, and Klamath counties, in all of which washing is being conducted by this process, or preparation is being made for its early inauguration."

"When we consider their vast extent, and how small a percentage of gold will warrant their being washed by the modes and appliances now in use, we perceive that we have in these gravel deposits material that cannot be exhausted in centuries. From a calculation based upon careful examination, made by W. H. Pettes, of the State Geological Survey, it appears that the great mass of top-gravel, the only portion yet panned off, in the Gold Run district has averaged no more than 5 cents to the cubic yard of earth; and yet the 48,000,000 yards disposed of by hydraulizing have been worked with good profit, the gross yield having amounted to about 22,100,000. About Little York, Quaker Hill, Birdseye Creek, and over on the Yuba, the average product of the entire mass of earth washed has been from 30 to 35 per cubic yard. Quarts mining in this State is steadily expanding, and working its way on to a better footing. New mills are being built, the old ones overhauled, and the idle ones started up; so, too, suspended work is being resumed on many lodes, and operations on others pushed to a larger extent. Mines that had suffered decline are returning to their pristine state, and even out-doing their former records. The famous Allison Ranch lode, after a clouded history for a series of years, is again sending up much high-grade ore. The Amador, in which a destructive fire brought operations to a halt nearly a year ago, is once more going on with unimpeded en-

ergies. The Confidence continues its almost unexampled rate of production; and the Souleby, near by—really one of the best quartz properties in the State—after years of neglect, likely soon to be restored to usefulness, and placed on the list of our most largely productive and profitable mines. The prevailing drought, while it has compelled a number of our quartz mills to shut down for want of water, has also, by its check upon placer operations, caused many miners in this branch of the business to leave it, and engage in prospecting for quartz, leading to an unusual degree of activity in that department."

With this week's Journal a SUPPLEMENTAL SHEET is given, which contains: Lectures at the Royal School of Mines, by Mr. W. Smyth—Diamond Fields of South Africa—A Day at the Comstock Lode—Our Railway System viewed in reference to Invasion (R. Mallet)—Cause and Prevention of Colliery Explosions (Illustrated)—Manufacturing Industry of Scotland—Cleveland, its Past, Present, and Future—Foreign Mining and Metallurgy—Foreign Mines Reports—Meetings of the Russian (Vyksounsky) Iron-works Company, the Queenborough Chemical Company, the West Lian-yong, North Smallbrook, East Pool, and Scottish Australian Mining Companies—Original Correspondence: The Copper Trade (A. Bennett); Spain, Past, Present, and Future, No. 1; Patent Gas Manufacture at Barnet; Our Coal Supply (Wm. Pith); Birmingham, and the Black Country (N. Hingray); Disasters of Iron-ore in Anglesey (R. Jones); Tributary Ores; Mining in Cardiganshire; With what are the St. Albans and Productive Lodes Mineralized (G. Evans); Cornish Tin Mining (Richard Tredennick); Scientific Mining (R. Knapp); Miners' Life at the Silver Mines in Nevada; Eberhardt and Aurora Mining Company; Pinto Mining Company; Chontales Consolidated Mine; Sweetland Creek Gold Mines; Californian Mining Enterprise, &c.

## The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, NOV. 17, 1871.

COPPER.		£ s. d.	Per ton.
Best selected . . . . .	75	0 0 80	0
Tough cake and tile . . . . .	75	0 0 80	0
Sheeting & sheets . . . . .	75	0 0 80	0
Boils . . . . .	80	0 0 80	0
Bottoms . . . . .	81	0 0 80	0
Old . . . . .	60	0 0 78	0
Burra Burra . . . . .	75	10 0 78	0
Wire . . . . .	0	0 0 94	10d.
Tubes . . . . .	0	0 10 11d.	
BRASS.		Per lb.	
Sheets . . . . .	8d.	8½d.	
Wire . . . . .	8d.	—	
Tubes . . . . .	8d.	—	
YELLOW METAL SHEATHING.		Per lb.	
Sheets . . . . .	6½d.	7½d.	
SPELTER.		Per ton.	
Foreign on the spot . . . . .	19	15 0 20	0
" to arrive . . . . .	19	15 0 20	0
ZINC.		Per ton.	
In sheets . . . . .	24	2 6 24	5 0
QUICKSILVER (p. bot.).		£	Per lb.
English blocks . . . . .	2148	0 0 0	—
Do., bars (in bris.) . . . . .	149	0 0 0	—
Do., refined . . . . .	148	0 0 151	0
Banca . . . . .	144	0 0 144	10
Straits . . . . .	144	0 0 145	0
TIN-PLATES.		Per box.	
IG Charcoal, 1st qua. . . . .	1	5 6 1 10	6
IX Ditto, 1st quality . . . . .	1	5 6 1 16	6
IG Ditto, 2d quality . . . . .	1	7 6 1 8	0
IX Ditto, 2d quality . . . . .	1	13 6 1 14	0
IG Coke . . . . .	1	6 6 1 7	0
IX Coke . . . . .	1	12 6 1 13	0
Canada plates, p. bot. . . . .	18	10 0 15	0
Ditto, at works . . . . .	13	10 0 14	0
IRON.		Per ton.	
Barre Welsh, in London . . . . .	8	3 6 8 10	0
Ditto, to arrive . . . . .	8	0 0 0	—
Nail rods . . . . .	8	10 0 0	—
" Stafford, in London . . . . .	9	0 9 5 0	0
Bars . . . . .	9	7 6 9 10	0
Hoops . . . . .	10	0 10 10	0
Do., at works . . . . .	8	10 0 0	—
Hoops . . . . .	9	2 6 0	—
Sheets, single . . . . .	10	15 0 11	0
Fig No. 1, in Wales . . . . .	4	10 0 10	0
Refined metal, ditto . . . . .	4	10 0 10	0
Do., common ditto . . . . .	7	6 10 0	0
Do., mch. Tynes Ties . . . . .	7	15 0 8	0
Do., railway, in Wales . . . . .	7	5 0 7 15	0
Do., Swed., in London . . . . .	11	0 0 0	—
To arrive . . . . .	10	15 0 11	0
Fig. No. 1, in Clyde . . . . .	3	9 0 3 15	0
Do., f.o.b. Tynes Ties . . . . .	—	—	—
Do., Nos. 3, 4, f.o.b. do. . . . .	—	—	—
Railway chairs . . . . .	2	15 0 4	0
" spikes . . . . .	12	0 12 13	0
Indian Charcoal Pigs, in London, p. bot. . . . .	6	10 0 7	0
STEEL.		Per ton.	
Swed., in kegs (rolled) . . . . .	13	0 0 14	0
" (hammered) . . . . .	13	0 0 13	0
Ditto, in fagots . . . . .	13	0 0 16	0
English, spring . . . . .	17	0 0 23	0
LEAD.		Per ton.	
English Pig, com. . . . .	18	0 0 18	2 6
Ditto, L.B. . . . .	18	2 6 18	5 0
Ditto, W.B. . . . .	20	5 0 0	—
Ditto, sheet . . . . .	19	0 0 0	—
Ditto, red lead . . . . .	20	10 0 21	0
Ditto, white . . . . .	28	0 30 0	0
Ditto, patent shot . . . . .	20	10 0 0	—
Ditto, at works . . . . .	17	10 0 0	—

At the works, 1s. to 1s. 6d. per box less. Add 6d. for each x. Terne-plates 2s. per box below tin-plates of similar brand.

**REMARKS.**—The past week has been one of unusual activity in the metal market. Transactions have assumed a magnitude far beyond late experience. A large business has been concluded in three of the principal metals—copper, tin, and iron, and prices are generally ruling upward.

**COPPER.**—So far as regards this metal, it is not a matter of surprise that public attention should at last be drawn to it. The statistics to which such frequent reference has been made, have all pointed to the anomalous position which copper has occupied in our market for a long time past, and the marvel has been that with so much in its favour copper should still be eyed with suspicion, and continue to a great extent neglected. This, however, is no longer the case. A steady, though gradual, tendency to improve has been observable for some weeks, but when on the 11th inst. advices were received that charters from Chili for the first fortnight in October were 7½ as regards England, and only 100 tons for the Continent, the demand increased, and prices advanced. Only a few of the transactions which have of late taken place have transpired, but we believe that we are within the mark when stating that during the current month some 10,000 tons of copper have changed hands. After the experience of the comparatively insignificant transactions which the public journals have recorded, these quantities are almost fabulously large, and although prices have distinctly improved, the established advance has not been so great as might have been expected. Ore and regulus, 13s. 3d. to 14s. 3d. per unit. Lota bars have changed hands from 67½ to 69s. 10s. cash and 71½ for arrival. Urmeneta has risen about 3½, having found buyers at 70½ cash and 72½ for arrival. J. Edwards has been sold at 71½ for arrival. Australian copper has participated in the improvement which has marked Chili, Wallaroo having changed hands at prices according from 76½ to 80½, according to prompt. Transactions that have appeared in the market have been of limited extent, and prices have declined from 68½ to 70½. A large business has been concluded in English tough cake and ingot at about 74½, and best selected 7½ higher. The demand for manufacture has hardly kept pace with that for other descriptions, for although India sheets are nominally 83½ per ton, yet business has been done at 77½, strong sheets at 81, and bottoms at 83½. There is a slight improvement in the demand from India, but up to the present time merchants have not received instructions from their Indian correspondents to advance their limits, so as to enable them to place their orders. It is difficult to ascertain what the position of the Indian markets is, but judging from the small shipments which have taken place from London and Liverpool during this year in comparison with previous years, it would seem that a steady demand must before very long set in from the East. Yellow metal has advanced in price, and a fair business is being done in it.

**IRON.**—Still further improvement is reported from the North of England. Every branch of the iron trade exhibits unusual activity, and commensurate with the advance in manufacture is that in pig-iron. In our last issue for the month of October we quoted No. 1 pig-iron 54s. 6d.; it has risen in about three weeks since then to 59s. This advance is to be accounted for by the great difficulty which is experienced in obtaining supplies of the raw material, inasmuch as the demand upon the resources of other centres of like industry, such as Glasgow and Wales, is quite equal to that of the North of England, so that but very little is imported. The published reports of the various districts are very interesting, as showing the extraordinary development of the trade. In the Cleveland district alone the average annual output is not much under 2,000,000 tons. In the month of October the make was 163,027 tons, which was all sold, and even this was found insufficient for the requirements for the district, so that to meet the deficiency stocks, already low, were indented on to the extent of about 12,000 tons. This being the state of affairs, it is not a matter of surprise that difficulties with regard to delivery should still continue, and that early deliveries for contracts lately passed are out of the question. No. 1 is now quoted at 59s.; No. 2, 56s.; No. 4, 54s. At present there is no falling off in shipments, but as the winter draws on the northern ports will be closed with ice, and shipments become reduced. The great press of work continues to be on rails and plates for shipbuilding purposes, the demand for the latter especially is very great.

The South Wales coal trade keeps pace with that of the North of England. Ironmasters find it difficult to meet the demands made upon them in the matter of delivery. There are some important orders which still remain on hand, and others keep coming in, so that no anxiety is felt with regard to abundance of employment being found for the men for some time to come. The American demand, especially for rails, is steady, but shipments can only continue to those ports which are not affected by the approaching winter. Business on home and continental account is fairly brisk in the matter of rails, but in plate-iron there is much activity. South America gives employment to the manufacturers of girders and bridge-iron generally, and there are enquiries for this description of iron for the colonies. Pig-iron is very firm. It cannot be made fast enough for manufacturers' requirements, and prices are looking up. In Staffordshire business is very brisk in the superior class of iron turned out in that district. Swedish iron is very firm, and full prices are expected to rule during the coming season; indeed, such is the uncertainty which prevails regarding the future course of this market that sellers are unwilling to commit themselves to any engagements lest they should find themselves unable to carry out their contracts except at a loss. The Glasgow pig market is again very firm, and prices are advancing, business having been concluded at 69s. 3d. cash, from which price it receded to 68s. 1½d., and again advanced to 69s., the closing quotations being 69s., cash, buyers. The shipments continue very large, and the quantity coming forward small. G.M.B. No. 1, 70s.; No. 2, 68s. 6d. Shipments for the week ending Nov. 11, 1871, 18,635 tons; Nov. 12, 1870, 10,357 tons; increase, 8279 tons; total increase since Dec. 25, 1870, 179,552 tons.

**LEAD.**—There is no change to report. The market is steady but quiet. Spanish, 17½ 10s.; English soft, 18½.

**SPELTER.**—A good business is being done in Silesian, prices ranging from 19½ to 20½, according to brand and delivery. P.H., 20½ 10s. to 20½ 15s.; Belgian and Rhenish, 19½ 5s. to 19½ 15s. out ports.

**TIN.**—There has been considerable excitement and activity in the

market. Daily transactions have taken place at advancing prices, which for the time appear to have culminated on Thursday, when business was done in Straits by public tender as follows:—82 tons at 142½, 60 tons at 143½, 25 tons at 143½, 30 tons at 143½, 50 tons at 144½, and 5 tons at 144½, averaging 143½. Further transactions were reported at 145½; Banca, 143½ 10s. to 144½ 10s.; English ingots, 144½; and the beginning of this month, to be about 2000 tons less than at the corresponding period last year—that is, in round numbers, 4500 as against 6400 tons.

**TIN-PLATES** are in good demand, and prices very firm. IC coke, 26s. 6d. to 27s.; charcoal, 29s. 6d. to 31s. QUICKSILVER is quoted at 11½ per bottle.

**COPPER.**—Messrs. James and Shakspeare—About 1000 tons regulus of Swansea have been sold at 13s. 9d. and 14s., and 880 tons to arrive in Liverpool at 13s. 10½d. per unit. Buyers now are willing to give the highest mentioned figure, but importers ask 1½d. to 6d. more. Yesterday 500 tons Chili ore in Swansea were sold at 14s. 1½d. per unit. In bars fully 3500 tons have changed hands, the purchases being pretty equally divided between cash and prompt extended payments. Urmeneta 68½ to 70½ 10s. cash, 68½ to 71½ for arrival or forward deliveries; and in these two brands the principal business of the week has been done. Good marks have fetched 68½ 10s. to 71½ cash terms, and 69½ to 71½ 10s. to arrive or with three months' prompt. The favourite mark J. Edwards has been sold at 70½ and 71½, short arrival. In Urmeneta double refined ingots about 400 tons were disposed of at 76½ and 78½ delivered in Birmingham. The market for all Chili copper is about 40s. to 50s. (according to brand) over last Friday's rates, and prices still show a tendency to advance. On Saturday (11th inst.) telegrams came to hand from Chili advising the charters for the first fortnight in October as only 100 tons bars, and that for France; the quantity for the corresponding period last year was equal to 2145 tons pure, and all for England. In Australian sorts a large business has likewise been done, 300 tons Hunter River cake realising 75½ 10s. and 76½ per ton, and about 400 tons Wallaroo from second hands selling at 78½ to 79½ 10s., according to prompt, and a moderate quantity at 80½ for delivery early next year. Holders are now firm at the quotations in our list. Of Burra a few sales have been made, at 78½ to 79½ 10s. cash and short prompts. The demand for English has also been very tough, and smelters advanced their quotations on 14th inst. 2½ per ton, making 78½ select 80½, other sorts in proportion.

**TIN.**—The demand for English is large, and, notwithstanding that smelters have raised prices fully 5s. per cwt. since the 10th inst., buyers still seem eager to place their orders, and have shown no hesitation in responding to the various advances. In Straits a good business has been doing, from 142½ to 145s. per cwt., but not so large an extent as in the previous week, which was, no doubt, caused by the fact that many parties interested in the article waited the result of the sale of 250 tons by tender yesterday before operating afresh. The sale realised an average of 144s. 3d. per cwt., the prices ranging from 143s. 6d. to 144s. 8d., and these being about what was generally expected, gave additional strength to the market, 100 tons selling subsequently by private contract at 145s. per cwt. Banca has remained stationary, at 143s. 6d. to 144s. per cwt., at which it has been dealt in here. In Holland the article has, however, been rather excited, and 84½ fls. paid freely.

The advance in the price of tin, to which we referred in our last, has been succeeded by a rise of 2½ per ton in copper, and the MINING SHARE MARKET has in consequence been particularly active and buoyant, notwithstanding the time occupied in the settlement of a heavy fortnightly account. The mines mostly in demand have been Treleigh Wood, Wheal Grenville, New Rosewarne, Tincroft, New Lovell, West Chiverton, Great Wheal Vor, Cook's Kitchen, South Frances, Drake Walls, Wheal Agar, West Caradon, Parys Mountain, East Lovell, North Roskear, Wheal Mary Ann, Eberhardt, Eclipse, Pacific, Utah, and a few others.

Wheal Grenville shares have been largely dealt in, and leave off 9½ to 10½; no change has taken place in the mine, but the lode in the 110 east continues of the most promising character, leading the agent to expect a further improvement. East Grenville shares are weaker, at 2½ to 3, in anticipation of a call. East Pool, 18 to 18½; at the meeting, held on Monday, the accounts showed a profit of 346£, on two months' working; and a dividend of 1600£, or 5s. per share, declared. To enable this dividend to be declared, 1120£ of the debts were carried to the suspense account, to which we referred two months ago; and the money to pay the dividend was borrowed from the bankers. This "suspense account," in other words the "back costs" of the mine, to be met some day, now amounts to 4122£. This mine is said to be looking well. New Pembroke, 4 to 4½; at the meeting, on Nov. 10, the accounts showed a profit of 970£, on four months' working, and a dividend of 2s. 6d. per share was declared, leaving 170£ in hand; the costs were charged to August. The tin sold to the meeting, 43 tons, realised 3627½, and the agents hoped to sell the same quantity during the next four months; the lode in the 90 east is worth 25½ per fathom, and the mine looking well generally. Bog, 2½ to 2½; Carn Brea, 14½ to 15½. Cook's Kitchen have advanced to 39, 40. Retallack, 200 to 220; at the meeting the dividend was 500£ (2s. 10s. per share), which is less than was expected, Devon Great Consols, 100 to 105.

Bronfloyd Stock, 102 to 107. Blaen Caelan, 1½ to 1½; a great improvement is reported from the mine. East Dolven, 1½ to 1½; the south wall of the Dolven lode has not yet been out, owing to its great width. Drake Walls, 15s. to 20s.; Dolocath, 220 to 230; East Basset, 9½ to 10½; East Caradon, 4 to 4½; East Lovell, 12 to 13; East Van, 8 to 8½; Great Laxey, 14½ to 15½; Great North Laxey, 25s. to 30s.; Great Wheal Vor, 11½ to 11½; New Wheal Charlotte, per ½ prem.; Hingston Down, 2 to 2½; Leeds and St. Aubyn, 9 to 10; New Lovell, 2½ to 3; New Seton, 5½ to 6½; North Roskear, 2½ to 3; Old Bottle Hill, 5 to 6. Parys Mountain shares in request, at 2 to 2½. Perkins Beach, 24s. to 26s.; Prince of Wales, 17s. 6d. to 20s.; Roman Gravel, 17 to 17½; Rosewall Hill and Ransom United, 20s. to 22s. 6d.; South Condurrow, 8½ to 9; South Crofty, 30 to 31; South Frances, 5½ to 60; St. Ives Consols, 8 to 9. South Carn Brea shares have declined to 5.

Tankerville, 16 to 16½; Tincroft, 61 to 63; Treleigh Wood shares have advanced from 11 to 14, 16; Van, 50 to 52; Van Consols, 1 to 1½; West Basset, 10 to 10½; West Caradon, 3½ to 4; West Chiverton, 17½ to 18½; West Frances, 28 to 30; West Seton, 130 to 140; West Tankerville, 3 to 3½; Wheal Agar, 1½ to 2; Wheal Basset, 10½ to 11½; Wheal Buller, 31 to 33; Wheal Jane, 51 to 55; Wheal Kitty (Lelant), 6 to 7; Wheal Kitty (St. Agnes), 13 to 14, ex div; Wheal Ury, 9½ to 10.

At the Pedn-an-drea meeting, held on Nov. 10, a dividend of 5s. per share was declared. The statement of accounts from April 27 to Oct. 26 shows—Tin sales, 13,612½ 0s. 4d.; costs, 8280£. 8s. 11d.; merchants, 2576£. 18s. 2d.; lords' dues, 643£. 6s. 3d.; bills receivable, 699£. 10s. 3d.; cash in hand, 4251£. 11s. 4d. In the statement of assets and liabilities the balance of assets is shown as 2505£. 0s. 9d. The capital expended on these famous old mines, which now with the present price of tin ought to pay regular dividends, has been 65,517½ 18s. 11d. Tin sold, 256,249½ 11s. 4d.; arsenic, 3331½ 14s. 10½; copper ore, 5490£; total, 330,589½ 14s. 9d. The cost have been, including lords' dues, 326,408£. 17s. 1d. The reports of the agent state that, in addition to the expense of regular explorations and the profit shown, a considerable sum has been laid out above the current working expenses on Cardono's shaft. This will greatly facilitate future operations in the extension of the mines, and by providing more rapid transit enable them to bring forward increased quantities of tinstuff. The mines are looking well, and promising for extended productiveness, and a continuance of dividends.

In Foreign Mines the transactions have been less numerous. Eberhardt and Aurora shares have again declined to 16, 17. South Aurora, 2½ to 2½; the directors have received a remittance of six bars of silver, valued 56740. Eclipse shares have improved to 22s



small. Camp Floyd shares are quiet; the agent reports that the title is perfectly in order, and that possession will, therefore, be immediately obtained, and operations commenced. The purchase money has been remitted. In Eclipse shares a large business has been transacted, at  $\frac{1}{2}$  to  $\frac{3}{4}$  premium; the advices received are of the most satisfactory character.

In British mines the greatest activity has been in tin shares; the price of this metal having again advanced, large purchases have been made at enhanced quotations. Tincoff shares have changed hands at prices ranging from 61 to 63; Carn Brea has been enquired for at 147 to 152; Great Wheal Vor has been largely dealt in at advanced quotations, the market closing firm at 11 to 11½. The mine throughout has much improved, one point of operation, west of Edward's, being worth 3000 per fathom.

Lead mine shares are steady, but transactions are not numerous, except in Van and East Van. The cause of the depression in these shares having been removed a strong demand set in, which has been well maintained. The monthly sampling from Van has increased to 460 tons of lead and 120 tons of blende. It is expected that this quantity will now be progressively augmented. West Chiverton shares remain steady at former quotations. In Bog, Pennerley, Perles Beach, and Great Laxey, business has not been so large as a short time since, but the purchases are of a more solid character. Shares are steady at quotations. The subjoined are the closing quotations:—Bog, 2½ to 2¾; Carn Brea, 145 to 150; East Caradon, 3½ to 4½; East Lovell, 12 to 14; East Van, 8½ to 9½; Great Laxey, 14 to 15; Great Vor, 10½ to 11½; Marke Valley, 3½ to 4½; North Roskear, 21 to 23; Pennerley, 3½ to 3¾; Perkins Beach, 1½ to 1¾; Tankerville, 16½ to 17; Tincoff, 60 to 62; Van, 50 to 52; West Chiverton, 17½ to 18½; Almada and Tiritio, par to ½ prem.; Birdseye Creek, 4½ to 4¾; Camp Floyd, par to 1 prem.; Cape Copper, 6½ to 7½ prem.; Chontales, 1½ to 1¾; Colorado Terrible, 4½ to 5; Don Pedro, 2½ to 3; Eberhard and Aurora, 15½ to 16; Pacific, 4½ to 4¾; Sierra Buttes, 4½ to 5; St. John del Rey, 31 to 33; Sweetland, 3½ to 3¾; United Mexican, 3 to 3½; Utah, 9½ to 10.

The LEICESTERSHIRE IRONSTONE AND SMELTING COMPANY, with a capital of 200,000, in shares of 10s. each, has been formed to purchase about 1000 acres of freehold land, with ironstone beneath, situated in Leicestershire, about midway between Market Harborough and Uppingham, on the borders of Northamptonshire. The surface rentals amount to about 20000 per annum, which may be increased by the erection of dwellings for the labour of the district. The geological position of the estate is in the oolitic formation, in which are the Northamptonshire beds of ironstone, containing, it is estimated, 16,000,000 tons of ironstone, or sufficient for a vend of 300,000 tons per year for fifty-four years. It is proposed to vend 150,000 tons and to smelt 150,000 tons, which, even with the present rentals, will give a profit of 54,5000, or sufficient to pay dividends at 30 per cent. per annum. From the prospectus, which will be found in another column, it will be seen that the purchase price is 110,000 in cash and 28,000 in fully paid shares, a price which is about 2d. per ton for the ironstone, exclusive of the agricultural value and the lower ironstone bed. The report of Mr John Roseby is of a very encouraging character.

The COLONIAL TRUSTS CORPORATION, with an authorised capital of 300,000, has been established for the purpose of making advances upon first mortgages of freehold estates in various colonies, either for the corporation direct, or on behalf of other parties for whom it may act as agent, or negotiating Government and other securities, and generally for the transaction of business in connection with the British colonies, and elsewhere. Subscriptions are at present invited for 10,000 shares, being the shares of the first issue (30,000 shares of 5s. each), remaining unappropriated. Of the other 20,000 shares, 15,177 are reserved for the shareholders of the Colonial Securities Company, whose business is to be taken over on terms which will enable the corporation, out of the profits of current transactions, to pay a dividend of 8 per cent. per annum, from the commencement of its business, and 4823 shares have been privately taken up. By the arrangement made the corporation will at once become possessed of a good substantial business, secure an influential connection and useful staff, and occupy a favourable position for the employment of additional capital. The prospectus will be found in another column.

The ESPINOSA SILVER MINING COMPANY are inviting subscription for 2800 first mortgage debentures of 25s. each, to be issued at par, and redeemable by yearly payments in numerical order at par, or 25s. per debenture. Each debenture is to bear interest at 7½ per cent., and will entitle the subscriber to five fully-paid shares of 5s. each of the company as a bonus, which shares will be entitled to a preferential dividend of 7½ per cent. until the debenture shall have been paid off, making together 15 per cent. upon the capital subscribed. The mines are so situated that they will be drained without pumping, the country is well wooded, and labour is cheap and plentiful. The price to be paid for the mines, buildings, machinery, tools, &c., as well as ores and land, is 100,000, of which 60,000 is to be taken in fully-paid shares, and 40,000 in debentures or cash at the option of the directors, but no portion of the purchase-money will be paid until the company is in possession of the property. Especial attention is drawn to the fact that the vendor is willing to take the whole of the purchase-money in shares and debentures, thus showing his entire confidence in the enterprise. The prospectus will be found in another column.

The SOUTH AFRICAN DIAMOND FIELDS ASSOCIATION has been formed, with a capital of 100,000, in shares of 5s. each, to acquire and work diamond mining claims in South Africa, on the half profit system. Working parties of not more than four persons will be formed, and supplied whilst employed at the fields with all requisite food, tools, tents, or other accommodation, by the Association. All funds are to be delivered at headquarters, and, after sale, all outlays and expenses will be deducted, and the net proceeds of the funds of each party will be divided between such party and the association in equal proportions. Mr. R. Vause will act as managing director on the fields, and the directors will send out a thoroughly competent valuer of precious stones to accompany him. Arrangements will be made for making cash advances on diamonds consigned to the association for sale and returns in England; also for the purchase of diamonds on the fields. The prospectus will be found in another column.

The WALREDDON MINING COMPANY, with a capital of 15,000, in shares of 1s. each, has been formed to purchase and work with approved modern appliances the Anderton, Rix Hill, and East Crowndale tin and copper mines, near Tavistock, Devon. The properties possess unusual advantages in respect of good roads, near proximity to town and railway, and abundance of water. There are three known rich tin lodes and two copper lodes, as well as a lead lode. For the present it is intended to confine operations wholly to the tin lodes in the sets, and, as a great amount of dead work has already been done on them, it is thought the present nominal capital will be amply sufficient to develop them. The prospectus will be found in another column.

The NEW TREVEDDOR TIN MINING COMPANY, with a capital of 10,000, in shares of 2s. each, has been formed to purchase and develop a valuable tin mine in Cardinham, Cornwall. The set is about one mile long and half mile wide, and, being on the banks of the River Fowey, can be developed by machinery worked by water-power, being one of the most important features in tin mining. There are five large and distinct lodes, and in the trial shaft, sunk on the Tremoreland lode a short time since, 3 fathoms deeper than the former workings, the lode was found to be 9 feet wide. The geological position of the property is all that can be desired, being at the junction of the granite and killas. Practical miners consider the Tremoreland lode will prove extraordinarily rich in depth. The prospectus will be found in another column.

The shares of the Emma Silver Mining Company are 3½ to 4½ prem. The shares of the South Aurora Silver Mining Company are 2½ to 3½ per share.

The shares of the Morvah Consols Tin Mining Company are 1½ to 1¾ prem. The directors of the I. X. L. Gold and Silver Mining Company announce the closing of the share list both for London and country on Thursday next, the 23rd inst. The shares are ¾ to 1¼ prem.

It is announced that Mr. Henry Bailey, late of Messrs. Crawshaw

Bailey and Company, has joined the board of directors of the Nantyglo and Blaenau Ironworks Company (Limited).

Mexican Railway Scrip closed at 3 to 2 dis., and the fully paid bonds 67 to 68.

Brazilian Street Railway Company advices, dated Oct. 28, states that the traffic continues remarkably good; receipts to the 27th inst. amounting to Rs. 21,631.

THROUGH RAILWAY COMMUNICATION TO INDIA.—On Wednesday evening next a paper will be read at the Society of Arts, Adelphi, by Mr. HYDE CLARK, entitled, "The Present State of the through Railway Communication to India." The chair will be taken at eight o'clock, by Lord Henry Gordon Lennox, M.P.

"WHAT TO SELECT—WHAT TO AVOID," is the title of a pamphlet by Mr. F. W. Mansell, containing much valuable information for the guidance of investors in British and foreign mines. Mr. Mansell's long experience justifies his appearance before the mining public as a trustworthy adviser; this is strikingly evidenced by the well-considered remarks that are made concerning many prominent mines, some of which would appear to have already responded to the views expressed. The pamphlet well deserves the attentive perusal of all interested in mines.

COAL MARKET.—The fresh arrivals this week were rather considerable, 138 ships having come forward. The cold weather increased the demand for house coal, and business has been very active, a clearance being effected at fully last week's prices for all descriptions. Hetton Wallsend, 21s. 6d.; Original Hartlepool Wallsend, 21s. 6d.; Lambton Wallsend, 21s. Twenty ships at sea.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending November 12 were 88501. 19s. 1d.

## M. B. W. H. C. U. E. L. L.

STOCK AND SHARE DEALER,  
No. 42, CORNHILL, LONDON, E.C.

Closing Prices of British and Foreign Mining Shares.  
Friday Evening, November 17, 1871.

Asheton .....	33 3/4	4 1/4	West Drake Walls .....	5s.	7s. 6d
Bog .....	2	2 1/4	West Es-gar Lile .....	29	31
Carn Brea .....	145	150	West Frances .....	1	1 1/4
Cook's Kitchen .....	57	59	West Maria .....	130	135
Devon Great Consols .....	95	100	West Tankerville .....	3	3 1/4
Drake Walls .....	3 1/2	4	Wheal Agar .....	1 1/2	1 3/4
East Basset .....	9 1/2	10	Wheal Buller .....	31	33
East Caradon .....	4	4 1/4	Wheal Grenville .....	8 1/2	8 3/4
East Grenville .....	2 1/2	3	Wh. Kitty (St. Agnes) .....	13	13 1/4
East Lovell .....	12	13	Wheal Mary Ann .....	8 1/2	8 3/4
East Pool .....	13	19	Wheal Soton .....	17 1/2	20
East Soton .....	30 1/2	32 1/2	Wheal Ury .....	9 1/2	9 3/4
East Van .....	8 1/2	8 3/4	Almada and Tiritio .....	7 1/2	8
Great Lovell .....	14	15	Anglo-Argentine .....	4 1/2	4 3/4
Great North Laxey .....	11 1/2	11 3/4	Bird's Eye Creek .....	4 1/2	4 3/4
Great Vor .....	11	11 1/2	Braganza .....	7 1/2	8
Herodfoot .....	41	43	Cape Copper .....	6 1/4	7 1/2 pm.
Hington Down .....	21 1/2	3	Camp Floyd .....	1 dis.	5 1/2 pm.
Marke Valley .....	3 1/2	4	Chontales .....	1 1/2	1 3/4
New Lovell .....	2 1/2	3	Colorado Terrible .....	4 1/2	5
North Roskear .....	21	25	Don Pedro .....	2 1/2	2 3/4 pm.
Old Batho .....	1 1/2	1 3/4	Eberhard and Aurora .....	16	16 1/2
Parya Mountain .....	3 1/2	3 3/4	Eclipse .....	1-16	1-16
Pennerley .....	3 1/2	3 3/4	Emma .....	7 1/2	8
Perkins Beach .....	1 1/2	1 3/4	Frontino and Bolivia .....	3 1/2	3 3/4
Prince of Wales .....	3 1/2	4	Independence .....	3 1/2	4
Providence .....	23	26	Javali .....	1	1 1/4
Roman Gravel .....	16	17	Kansas .....	4 1/2	5 1/4
South Carn Brea .....	5 1/2	6	Mineral Hill Deb. .....	98	98
South Condurrow .....	8 1/2	8 3/4	Pacific .....	4 1/2	4 3/4
South Crofty .....	29	31	Pestana United .....	3 1/2	3 3/4
South Frances .....	56	58	Rosa Grande .....	7 1/2	8
South Lisburne .....	7 1/2	8	Russia Copper .....	7 1/2	8
South Roman Gravel .....	1	1 1/4	Richmond Consolidat. .....	1 1/2	2 pm.
South Van .....	5s.	10s.	Sierra Buttes .....	4 1/2	5
Tankerville .....	16	17	St. John del Rey .....	30	32
Tincoff .....	59	61	South Aurora .....	2 1/2	2 3/4
Trumpet Consols .....	15s.	16s.	South Utah .....	1	1 1/4
Van .....	50	52	Sweetland Creek .....	3 1/2	3 3/4
Van Consols .....	1	1 1/4	Thornhill Reef .....	3 1/2	3 3/4
West Caradon .....	2 1/2	3	Thorhill Reef .....	3 1/2	3 3/4
West Chiverton .....	17 1/2	18	Yudanamutana .....	9	9 1/2

PERRAN CONSOLS.—100 shares FOR SALE, at 1¼.  
GWYDER PARK.—50 " " 20s.

Mr. W. H. CUELL is prepared to deal in all the above, and orders to BUY or SELL will be promptly executed, either for immediate settlement or account.  
Mr. W. H. CUELL will be happy to forward, free on application, his "Daily Price-List."  
Bankers: City Bank.

Just published.

THE SECOND EDITION OF "THE STOCK EXCHANGE REVIEW," which everybody ought to read, contains the European Assurance Tragedy, the Gigantic Emma Mine, South Aurora Mines, together with other valuable information to investors. Forwarded on receipt of Three Stamps by the Publisher.

J. H. BAKER, 8, Union-court, Old Broad-street, London.

MAKING MOULDS AND CORES FOR CASTINGS.—The invention of Messrs. J. DEMAREST and J. L. MOTT, of Mott Haven, U.S., relates to improvements in machines for packing green sand upon the core-bars upon which they are built, and reducing the sand to the required shape for pipe cores, and consists in the arrangement of a pair of mould boxes or a mould box and a pattern, vertically on sliding supports, which move them towards or from each other, the said mould boxes or mould box and pattern being provided with gates for automatically closing the spaces between them when open. Also in the combination with the mould boxes and sliding supports of toggle-jointed arms, and a movable bar for operating the same, the mould boxes being moreover arranged to open wider at the top than at the bottom.

UTILISING WAVE POWER AS MOTIVE FORCE.—Mr. S. R. DEVERELL, of Mount Gambier, South Australia, proposes to employ the indirect action of the waves on a free or detached body within board of a vessel. The whole mechanical effect is due to the absolute motion of the detached body together with that due to the absolute motion of the ship. He erects a shaft in any convenient part of the ship, passing through the upper deck and resting on a lower one, free to rotate either way. To the lower end he attaches a heavy body with its outer extremity supported by a wheel travelling on a circular rail. On the upper end above the upper deck he attaches two bevelled wheels with circular ratchets. These wheels are to be loose on the shaft. Between these wheels he places an arm proceeding from the shaft, and having rival pawls to gear into and work the respective ratchet and bevil wheels. He provides a bevil wheel fixed on the end of a counter shaft, to fit between and gear into both of the bevil wheels on the vertical shaft.

SLATE AS A SUBSTITUTE FOR LITHOGRAPHIC STONE.—An improved process and composition, whereby slate and various other materials are made to serve as substitutes for lithographic stones, have been invented by Mr. J. N. LAMBERT, lithographic artist, of Castle-street, Bristol. He takes a block or slab, made smooth and true, and coats the same with glue or other gelatinous matter. In some instances he adds a solution of silicate of soda and bichromate of potash, or he may use this solution alone. The block or slab is then exposed to sunlight, and then washed, to remove the superfluous coating; then, after being dried, the said block or slab is ready for drawing or writing upon. He makes an ink or pigment with gelatine, albumen, or other gelatinous matter dissolved in a saturated solution of bichromate of potash, either with or without chrome alum, and with a small quantity of ivory black to render the ink visible. He then produces on the prepared block or slab the desired picture or other work with this ink, and allows the same to dry. When dried he exposes it to sunlight. After the exposure he covers the surface with gum or glycerine. The block or slab is then ready for the printer.

IMPROVED TURBINE WATER-WHEELS.—In the particular form of turbine wheel to which the improvements of Mr. E. P. CAPRON, of Hudson, U.S., are applicable, the vertical shaft to which the discs of the wheel are secured is without a hub, and the water is admitted through an inlet or neck on one side of the case or scroll in which the wheel is enclosed, and after having spent its force, is discharged through an opening in the centre of the wheel. These improvements consist—1, in making the buckets separate and detachable from the discs, between which they are secured, for the purpose of allowing them to be polished before being inserted in the wheel, so as to reduce friction, and also for the purpose of allowing them to be readily removed and replaced in case they should become broken; 2, in making a portion of the cover to the inlet of the scroll detachable, for the purpose of securing ready and convenient access to the gate and wheel, so that obstructions, such as sticks, which find their way into the scroll or into the wheel, may be easily removed, and a new gate may be fitted in without removing the wheel from the case or scroll, and without detaching the latter from the frame or water-box; and 3, in connection with the shaft having no hub, in placing hollow danger corresponding in number to the number of buckets on the inner periphery of the discs at the discharge, which receive the water as it leaves the buckets, and continue its propelling action after it leaves the buckets, which ensure the immediate and free discharge of the water from the scroll as it is propelling action has ceased.

## ZINC AND LEAD ORES.

I AM PAYING as follows:—

1.—BLENDE.			Price of a ton (20 cwt.) of blende, delivered f.o.b. at Antwerp, and containing 65 per cent. of zinc.			Diminution of the foregoing prices for every 1 per cent. of zinc, less than 65 per cent.		
Date.	Mines.	Tons.	Price per ton.	Purchasers.				
Nov. 10	Powell United	25	£11 9 6	Barry Port Company.				
	Nantiglo	20	11 6 0	ditto				
14	Foxdale	60	12 6 0	ditto				
16	Wheal Mary Ann	45	21 6 0	Weston, Son, and Co.				
	ditto	58	12 12 6	Trefrey Estate.				
	Roman Gravel	125	12 3 0	Walker, Parker, & Co.				
	Bwardraun Consols	20	11 6 0	Eyton.				
17	Pennerley	68	11 18 0	Peter Glover.				

2.—CALCINED CALAMINE—9s. more than for blende.  
3.—RAW CALAMINE (carbonate or silicate).—13s. more than for blende.  
4.—LEAD-SILVER ORES.—220s. for 85 units of lead, deducting 3s. 4d. per unit below, all the silver being paid extra 4s. 10d. per ounce troy.

I also BUY at the HIGHEST PRICES:—

5.—ZINC AND LEAD ORES MIXED TOGETHER.  
6.—SILVER-LEAD ORES.

I BUY any quantities, however large, contracting for as many years as desired. Particulars by letter.

ARMAND FALLIZE, Ingénieur, à Liège (Belgium).

## TO SILVER MINING COMPANIES.

A MANAGER, of many years' experience, with excellent testimonials, desires a PERMANENT APPOINTMENT. Speaks and writes Spanish.

Address, "E. B. E.," S. B. Relf and Co., 17, Old Jewry-chambers, London.

WANTED, immediately, a good, practical, and experienced SILVER REFINER for a SMELTING and DESILVERISING WORKS in the SOUTH OF SPAIN.

Apply, with testimonials and references, to Messrs. DE NEUVILLE and Co., Linares, Province of Jaen, Spain.

WANTED, a second-hand 26 inch HORIZONTAL HIGH-PRESSURE BLAST ENGINE, 4 ft. stroke, blowing cylinder 60 in., all complete for fixing. Must be strong and in good condition, with two forcers attached to cap and gun, one 3¼ in. diameter and one 3½ in. diameter.

Apply to JOHN LEWIS and Co., Tydee Tin-plate Works, near Newport.

## GRANITE QUARRY.

AN EXCELLENT QUARRY, well opened, and out of which many thousands of tons of setts can be at once made, is FOR SALE.

Close to a shipping place.

Apply, prepaid, to W. JAMES SCOTT, 2, Warwick-street, Regent-street.

## NORTH TREKERRY.

WANTED, TO PURCHASE, TWENTY (or any less number) SHARES. State number and lowest price to "H. W.," Bond-street, Redruth.

SHARES FOR SALE IN A VALUABLE TIN MINE.—The owner leaving England is the only cause of their being sold, as the mine will shortly be making great profits. The shares have never been on the market. Mine (nearly 50 fathoms deep) worked without pumping machinery. Address "X. Y. Z.," MINING JOURNAL Office, 26, Fleet-street, E.C.

TO CONCESSIONAIRES, PROMOTERS, AND FINANCIERS.

SHARES IN NEW ENTERPRISES SUCCESSFULLY INFLUENCED AND PLACED.

Address, in perfect confidence, "Operator," care of John Baptist Wolpert, Advertising Agent, 24, Austinfriars, E.C.

## TO CAPITALISTS.

PURCHASE AND WORKING CAPITAL, £5000.

FOR SALE, FIVE-SIXTH PARTS OR SHARES in a MINE in CARDIGANSHIRE, adjoining and situate between the richest mines ever worked in this county.

One-sixth is retained by the Advertiser, Capt. ABRAHAM FRANCIS, Goginan, Aberystwith, from whom all particulars may be obtained.

November 15th, 1871.

N.B.—TWO other good MINING GRANTS FOR SALE. Particulars on application.

## TIN MINE.

FOR SALE, a good TIN SETT, on which a large outlay has been made to open up the lodes. Water power available for pumping, drawing, and stamping.

Further particulars on application to Mr. EDWARD BETTELEY, 25, Cheltenham-place, Plymouth.

THE BEST MINING INVESTMENT OF THE DAY—property situated in the heart of the celebrated Lisburne district, and containing the Lisburne lode.

For full particulars, apply to G. R. ROSS and Co., 26, Nicholas-lane, E.C.

TO SELL, OR LET ON HIRE, for cash or deferred payments, FIFTY COAL WAGONS, hopper built, with bottom and side doors, carrying seven tons.

Apply to MANSTON COAL COMPANY, Leeds.

## WATER-WHEELS FOR SALE.

ONE of 45 feet diameter by 5 feet wide.  
ONE of 40 feet diameter by 4 feet wide.  
ONE of 27 feet diameter by 8 feet wide.

Apply to—Mr. EDWARD BETTELEY, 25, Cheltenham-place, Plymouth.

## SURPLUS MACHINERY ON SALE.

FOUR WHEEL TANK LOCOMOTIVE, worked 15 months; price £330; splendid STEEL BOILER, by Adamson, 16 ft. by 4 ft. 6 in.

price £60; several HORIZONTAL ENGINES, nearly new, and a large quantity of similar and other machinery. ENGINEERS' TOOLS, &c., &c., good as new, and cheap.

C. REEVES, BANK STREET EXCHANGE, MANCHESTER.

## DEODORISATION OF SEWAGE.

TO CAPITALISTS.—AN EXTRAORDINARY DISCOVERY has been MADE in reference to the TREATMENT OF SEWAGE, which will EFFECTUALLY SUPERSEDE every OTHER SYSTEM hitherto brought before the public. Its power in purifying sick rooms, hospitals, and for general household purposes is surprising and complete.

The co-operation of one or two gentlemen of capital is required on terms of mutual benefit.

Address, by letter only, "W. R. P.," 246, Caledonian-road, N.

MR. R. TREDINNICK, CONSULTING MINING ENGINEER, 5, CROWN COURT, THREADENEE STREET, LONDON.

Selected List of Dividend and Progressive Mines, &c.; selected List of Foreign Bonds and Colonial Bonds, &c.; selected List of Home Securities, Banks, Railways, and Miscellaneous, &c.

"SCIENCE OF INVESTMENT" revised. Second Edition. Ten Thousandth. Price 5s.

Foreign, Colonial Bonds, Railway Stocks and Shares, Banks, Insurance, and Miscellaneous Stocks and Shares bought and sold at the market prices subject to a profit of 1 per cent. on the price of the day.—Aug. 25, 1871.

LABORATORY OF ANALYTICAL CHEMISTRY.—4, THE CEDARS, PUTNEY, LONDON, S.W.

ESTABLISHED 1859.

ANALYSES and REPORTS on METALLIC ORES, METALS, &c., daily attended to by Dr. T. L. PHIPSON, F.R.S., Member of the Chemical Society Paris, &c.

## LEAD ORES.

4, THE CEDARS, PUTNEY, LONDON, S.W.

ESTABLISHED 1859.

ANALYSES and REPORTS on METALLIC ORES, METALS, &c., daily attended to by Dr T. L. PRIPSON, F.C.S., Member of the Chemical Society of Paris, &c.

# LEAD ORES.

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	ditto	58	12 12 6	Trefrey Estate.
	Roman Gravel	125	12 3 0	Walker, Parker, & Co.
	Bwardra Consols	30	11 6 0	A. Kyton.
17	Pennery	68	11 13 0	Peter Glover.



# THE LEICESTERSHIRE IRONSTONE AND SMELTING COMPANY (LIMITED).

Incorporated under the Companies Acts, 1862 and 1867.  
Capital £200,000, in 20,000 Shares of £10 each.

Of which it is proposed that £9 per share shall be called up as follows:—  
£1 on application; £2 on allotment; £3 February 1st, and £3 March 1st, 1872.  
The whole of the instalments may, however, be paid up to £10 on allotment, in which case a priority of consideration will be given to such applications, and such shares will be entitled at once to rank for dividends on the whole amount so paid up.

## DIRECTORS.

J. BERGER SPENCE, Esq. (J. Berger Spence and Co., London, Manchester, and Glasgow).—CHAIRMAN.  
The Right Honourable Lord REANE, United Service Club, London.  
W. T. MCCULLAGH-TORRENS, Esq., M.P., London.  
W. BYRON FOX, Esq., Chairman of the Gooles Alum and Smelting Company (Limited), Congleton.  
WILLIAM AUGUST COGHLAN, Esq., Director of the Gooles Alum and Smelting Company (Limited), Leeds.

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The NATIONAL PROVINCIAL BANK OF ENGLAND, London and Branches.

Messrs. MERRIMAN AND PIKE, Library-chambers, Blomfield-street, Finsbury-circus, London, E.C.; and

Messrs. PARTINGTON AND ALLEN, Town Hall-buildings, King-street, Manchester.

AUDITORS—Messrs. QUILTER, BALL, AND CO., 3, Moorgate-street, London, E.C.

SECRETARY—MR. THOMAS KELLY.

TEMPORARY OFFICES,—75, MARK LANE, LONDON, E.C.

## PROSPECTUS.

This company is formed to purchase about 1000 acres of valuable freehold land situated in the parishes of Holt, Medbourne, and Bradley, in Leicestershire, and about midway between the towns of Market Harborough and Uppingham, on the borders of Northamptonshire, and contiguous to the Medbourne Bridge Station, on the Stamford and Rugby branch of the London and North-Western Railway, and to work, vend, and smelt the ironstone therein, and for smelting purposes to take powers to erect blast-furnaces.

The estate consists of highly productive arable, pasture, and meadow land, with farmhouses, homesteads, and buildings, and is let to responsible tenants, at a rental of about £2000 per annum, which may be increased by the erection of dwellings for the labour of the district.

The geological position of the estate is in the Oolite formation, in which are the Northamptonshire beds of ironstone, and the beds of ironstone in this property are calculated by a high authority (Mr. John Rosbey), as per annexed report, to contain more than 16 millions of tons, which is equal to a vend of 300,000 tons of ore per annum for 54 years. It is important to notice that, after the removal of the ironstone and replacement of the top soil, the surface can be restored for cultivation.

The ore contains 33 to 40 per cent. of metallic iron of good quality, and the result in practical operation, as shown in the annexed report of Mr. Giers, who is one of the highest authorities on the manufacture of pig-iron, is equal to 1 ton of iron from rather less than 3 tons of ore, being a higher percentage than the Cleveland ore.

Large quantities of this class of ore are vended into Staffordshire, Derbyshire and South Wales, where it meets with a ready and increasing market. Upon the estate are also large beds of gravel; sand for the preparation of pig-iron beds; and a superior brick earth.

It is estimated that the expense of laying out the ironstone beds for an output of 300,000 tons yearly will not exceed £6000, and that the cost of working and delivering into trucks will not average more than 1s. per ton, as the ore is obtainable chiefly by quarrying, and can be opened out sufficiently in three months to deliver this quantity.

It is proposed to vend 150,000 tons, and also to smelt 150,000 tons of ore per annum, subject to such deviations as circumstances may render desirable. The selling price of the ore in Staffordshire is 6s. 6d. to 7s. a ton, and the total cost (calculated at 4s. 1d. delivered there), would leave a profit of 2s. to 2s. 6d. per ton.

According to the accompanying report, the cost of producing pig iron from the ore on the spot will not exceed 30s. per ton, as the ore can be delivered into the proposed blast-furnaces at a less cost than can now be done into any furnace in the kingdom,—at about 3s. per ton of iron produced. Taking the price of pig-iron at only 4s. (instead of 5s. as now ruling), it will yield a profit of 15s. a ton, and by smelting a portion of the ore on the property much more advantageous railway rates may be obtained, owing to the return freight.

The net profits as estimated would be as follows:—  
From vending 150,000 tons of ore, at 2s. a ton profit..... £15,000  
From smelting 150,000 tons = to 50,000 tons iron at 15s. .... 37,500  
From rentals of land, &c., estimated at..... 2,000

Total..... £54,500  
which is equal to a profit of 30 per cent. per annum upon the proposed paid-up capital, and it is a novel and important feature in this company that the value of the freehold estate for agricultural purposes is equal to about one-half the purchase money.

The class of investment has been, hitherto, but little known to the general public, because local ironmasters have, for the most part, monopolised the enormous profits resulting from ironstone undertakings, but several limited companies which have taken up this branch of industry are paying dividends ranging from 15 to 25 per cent., which proves the very lucrative nature of this description of industrial enterprise.

Mr. Robert Hunt, F.R.S., of the Mining Record Office, states that the output of iron ore in 1869 had advanced to 11,500,000 tons, of the value of £3,732,560, the quantity being more by 1,340,000 tons than in 1868. This amount was largely exceeded in 1870, and has been much more increased in the present year.

According to the Board of Trade returns, the export of iron and iron manufactures for the ten months of the present year reached the enormous total of 3,500,000 sterling.

The demand for first-class iron ores of all kinds exceeds the supply, and prices have advanced accordingly; and never before has there been such an impetus given to ironstone mining. The demand for pig-iron is altogether unprecedented. Makers are in many instances over sold, and there is no probability of other than a great expansion of business in the iron trade.

An agreement has been entered into for the purchase of this property for the sum of £110,000 in cash, and £28,000 in fully paid-up shares, a price which is about 2s. a ton for the ironstone, exclusive of the agricultural value and the lower ironstone beds.

An offer has recently been made by one of the largest rail makers in the country for 50,000 tons of pig-iron to be made from this ore, at a very remunerative price. Arrangements have also been made for obtaining a perpetual way leave from the property to the London and North-Western Railway, the terms of payment for which are provided in the contract specified below.

A contract, dated the 30th day of October, 1871, and made between Edwin Gerard of the one part, and William Byron Fox and Frederick Williams, of the other part, has been entered into, and a copy thereof and of the plans annexed thereto may, together with a copy of the Memorandum and Articles of Association, be seen at the offices of Messrs. Merriman and Pike, solicitors, Library-chambers, Blomfield-street, Finsbury-circus, London; and the original contract and plans annexed thereto may, together with a copy of the Memorandum and Articles of Association, be seen at the offices of Messrs. Partington and Allen, solicitors, Town Hall-buildings, King-street, Manchester.

The directors invite a careful perusal of the accompanying reports.

Prospectuses and forms of application for shares may be had from the bankers, solicitors, brokers, and also from FREDERICK WILLIAMS Esq., at the offices of the company, No. 75 Mark-lane, London, and from whom all further information can be obtained.—75 Mark-lane, London, 18th November, 1871.

Copy Report of Mr. GJERS, of the firm of Giers, Mills, and Co.,  
Ayrshire Iron Works, Middlesbrough.

Middlesbrough-on-Tees, 8th August, 1871.

GENTLEMEN.—In reply to your asking me to give you my experience of the "Nevel Hill" iron ore, I can only say that, having gone over the estate and examined the bed, there is no doubt of its existing in very large quantities, and that it could be cheaply worked and easily opened out at a comparatively small outlay. The ore is the Northampton bed, and it may be considered in practice, without much sorting, to contain 35 per cent. of iron; that is, it would require about 3 tons of ore to make 1 ton of iron. The quantity of nearly 200 tons, which I superintended the smelting of at Clay Cross, came out at about 37 per cent., but this was probably more carefully sorted than would be necessary in practice if the ore was smelted on the spot. The quality of the iron from it may be considered similar to that smelted from Northamptonshire ores, and is, more particularly, a useful iron for foundry purposes. About the probable quantity of ore on the estate, and the actual cost of getting, I would prefer you to consult a mining engineer.

JOHN GJERS.

Copy report of Mr. JOHN ROSBEY, Mining Engineer and Mining Surveyor,  
Engineer to the Frodingham Ironstone Properties.

Haverholme-house, near Briggs, Lincolnshire, 20th September, 1871.

GENTLEMEN.—I have carefully examined the property set forth in the schedule and plan hereto attached, situated in the parishes of Holt, Medbourne, and Bradley, about six miles from Market Harborough, in the county of Leicestershire, and containing about 1000 acres, and now beg to lay before you my views as to the geological position of the property and the ironstone to be found therein.

First: As to the geological position. The strata found to exist immediately below the surface are known as the Lower Oolite, in which the Northampton beds of ironstone exist; below this is found the Lias and Marlstone, in which the Cleveland and North Lincolnshire beds of ironstone are found. The first of these beds forms the surface of a considerable area of this estate, and is known as the Northamptonshire bed of ironstone; below this is a series of Blue Shale beds for a depth of 25 yards, where the top Cleveland bed may be found. The third bed of ironstone will be found about 30 or 40 yards below the top Cleveland bed.

Secondly: With regard to the first of this series of ironstone beds, or that known as the Northampton bed, it is found to crop to the surface in various parts of the estate, and forms the surface with a thin covering of soil over a considerable area. It is variable in thickness. It has been opened and worked by open quarry, and many thousands of tons have been sent into Staffordshire and sold to various ironmasters, who speak in favourable terms as to its quality and character. In fact the price realised for the stone in Staffordshire is a proof that it is favourably received.

The average thickness of this bed of ironstone may be safely taken at 15 feet over an area of about 800 acres of this property, and will produce a gross total of nine million (9,000,000) tons of ironstone.

The second, or No. 2 bed of ironstone, known as the Cleveland Top Bed, will be found about 30 or 40 yards below the first bed, and will be obtained by mining. This bed will be found to exist under at least 800 acres of this property, and will pro-

duce a gross total of seven million two hundred thousand (7,200,000) tons of ironstone.

The third, or Main Cleveland, or North Lincolnshire bed of ironstone, will be found to extend under the whole of the estate. This bed has not been worked in any part of Leicestershire or Northamptonshire, although it is exposed at the surface at various points in both counties and also in Rutlandshire, but at places where it is not accessible either by water or rail. I estimate that this bed will yield (after allowing for loss by mining) 20,000 tons per acre. But to leave this bed entirely out of calculation, and to deal with the first two beds, we have a gross total of sixteen millions two hundred thousand (16,200,000) tons of ironstone, which is equal to a vend of three hundred thousand (300,000) tons per annum for a term of fifty-four (54) years.

Large quantities of this ore are vended in Staffordshire, Derbyshire, and South Wales, where it meets with a ready market, and is at present in great demand through the whole of these districts.

I estimate that the expense in laying out these mines for working and vending three hundred thousand (300,000) tons of this stone per annum would not exceed six thousand (£6000) pounds, since for laying down the necessary tramways, as shown on plan attached, all the necessary foundations, cuttings, and bridges are completed, and railway formations constructed. I estimate that the cost of working these two beds of ironstone and delivering the ore into trucks will not exceed one shilling (1s.) per ton on the average; but assuming the average cost to be one shilling and four pence (1s. 4d.) per ton into railway trucks, the cost of transit to various parts of Staffordshire may be taken at an average of 2s. 9d. per ton, and wagon hire 6d. per ton. The selling price is at present not less than 6s. 9d. in Staffordshire, so that a clear profit of two shillings and two pence per ton may be realised on the sale of ironstone.

By smelting a portion of the ore on the place an additional profit can be realised, as the ironstone can be put into the furnaces from this property at less cost than in any place where pig-iron is at present made. In fact there is no doubt that pig-iron can be made here at 30s. per ton, and at the low price of 45s. per ton 15s. per ton profit can be realised. You would also have an advantage in railway rates by having a back carriage in coal or coke from Staffordshire or Derbyshire.

I estimate that by the sale of—  
150,000 tons of ironstone at 2s. per ton instead  
of 2s. 2d. equals ..... £15,000  
150,000 tons of stone smelted on the property,  
producing 50,000 tons pig-iron, at 15s. per ton  
profit ..... 37,500

Thus leaving a clear profit of ..... £52,500 per annum.

JOHN ROSBEY.

## THE LEICESTERSHIRE IRONSTONE AND SMELTING COMPANY (LIMITED).

### FORM OF APPLICATION FOR SHARES.

(To be retained by the bankers.)

To the Directors of the Leicestershire Ironstone and Smelting Company (Limited).

GENTLEMEN.—Having paid to the credit of the company, at your bankers the sum of £ , being £1 per share on my application for shares of £10 each in your company, I request you to allot to me that or any less number of the said shares, and I hereby agree to accept the same, and to pay the balance in respect thereof, and to be registered as a member of the company in terms of the Articles of Association of the company.

Name (in full) .....  
Address .....  
Profession (if any) .....  
Date .....  
Signature .....

Addition to be signed by applicant desiring to pay up all the instalments on allotment:—  
I desire to pay up my subscription in full on allotment, thereby entitling me to priority in the allotment, and to rank at once for dividends on the amount paid up.

This sheet to be filled up and remitted to the National Provincial Bank of England, 112, Bishopsgate street Within, London, or its branches, with the sum payable on application.

## Notices to Correspondents.

\* \* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

EXTRACTING SILVER FROM LEAD.—Would some of your correspondents kindly inform me through the medium of your valuable Journal who are the patentees (if any patent) for the modern method of extracting silver from lead by means of an admixture of zinc, and which requires much less labour than either Pattinson's or Parkes's process? I heard it was a Cornwall firm, but have never been able to ascertain the true facts. By giving the information they would greatly oblige.—DESIDERATUM.

# THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, NOVEMBER 18, 1871.

## THE COPPER TRADE.

Slowly but surely and steadily that change is coming over the copper market which we have from time to time indicated, and more especially in an article on copper in the Journal of Sept. 2, when we spoke of the increasing demand as gradually overtaking the increased production of late years; and pointed out that it was rather in new outlets than in the revival of old channels that the producer has to look for a better return for his labour and outlay. Not only, however, is this result being brought about by new demands, but also by a perceptible falling off in the supply of copper from South America, and whether this latter is from the closing of mines in Chili, by means of the late unremunerative prices obtainable for raw copper in Europe, or from the abstraction of labour from the copper mines for the more remunerative if perhaps the more risky silver mining in Peru, the fact remains the same, that we shall receive from Chili 5000 tons of copper this year less than last year. At the same time, an available stock of copper, by which we mean the quantity lying at Havre, London, Swansea, and Liverpool, including also what is afloat from and chartered in Chili, was on November 1, 4500 tons of fine copper less than on the same date last year, and that despite a diminished export to India of about 4000 tons in the 10 months of this year, as contrasted with the shipments in the same period of 1870, which was again 3500 tons less than the same 10 months of the preceding year.

These figures are indeed the most astounding that have been presented to the trade for a long time, and it behoves us to enquire as to the channels into which the copper is going, as well as to point out to those who trade with India that their influence is fast passing away, at least as regards the regulation of prices. This latter assertion is incontestably proved in the fact that despite the diminished exports to India the price of braziers' copper, which is the special article used in that market, was 5s. per ton higher on the 1st inst. than on Nov. 1, 1870. With this diminishing demand from and influence of India on the copper market seem also to be passing away those manufacturers who made that trade their speciality, their place being taken by manufacturers of finished articles more in consonance with the progress and necessities of modern life. This great change, however, would not have been so rapid but for two almost unexpected conditions—war and the economic errors of our neighbours. Justly may Englishmen point with pride to that good sense in her people which has freed her of late years from great wars, and sanctioned the development of free trade as the only sure basis of commercial prosperity, and if only her traders and manufacturers would drop their conservatism, and admit the inestimable value of what we may term free trade in knowledge, no European, and perhaps no nation in the world, could compete with her in the excellence and cheapness of her manufactures.

A striking example of the result of following the opposite course lies in the fact that the Protectionist policy of the United States has fairly stamped out and driven to English shores the trade of shipbuilding, in which Americans, before their civil war, were making for themselves a world-wide fame. Thus we are now building steamers not only for carrying on our own trade, but also for the trades of other countries, and at the same time the English are fast monopolising the sea-carrying trade of the world. Still more, even we have built, and are still building, nearly all the iron-clad men-of-war afloat, excepting those of some of the largest European navies, whilst it is estimated that we have at this moment 600 steamers in the course of construction in the building yards of Great Britain. This is a fact which involves activity not only to the shipbuilding trades, but also to all those trades which manufacture the component parts of a steamer, amongst which the most interesting to our present purposes, although not by any means the least important, is that of the manufacture of the copper and brass rods, plates, and tubes essential in the construction of every steamer. Thus we are brought to face the most striking, and perhaps the most rapidly increasing,

outlet of modern times for copper. Indeed, such a rapid enlargement of a trade might be almost alarming, as pretty sure to be followed by a strong reaction; but we have a remarkable instance of the increasing necessity of steamers in connection with that very country which sends us the greater part of our cotton. Not many years ago, and not even so many months ago, the trade with the west coast of South America was carried on entirely by sailing vessels. Then an occasional steamer was started. After that a regular monthly packet, and now it has been determined to send a weekly steamer from Liverpool to Chili and Peru.

Coincident with this marvellous increase in our steamer building trade, there is an equal activity to be found in our locomotive building shops, where the demand is in excess of the capabilities of production. At the same time, there are several new deep-sea cables to be started, which will require a large quantity of copper in the form of wire. Let us, however, leave these alone for the moment, and turn to the influence of modern war on the copper trade. In war it is an essential point for success that the soldiers can depend not only on the efficiency of their weapons—generally a rifle of some form or other—but also on the certainty that every charge put into them shall explode when required. The bullet, the powder, and the fulminating mixture, by which the charge is fired, must in a modern rifle be in one case, which case will of necessity be exposed in actual warfare to rain and damp. It is essential, therefore, that this enveloping case shall be of some material which shall protect the contents from all moisture. The Germans entered on their late war with France armed with a cartridge enveloped in a cardboard case, but in that war, although victorious, they have learnt that their cartridge cases must be of metal, like those of England, France, Spain, Austria, Italy, Russia, &c. Now, the metal best adapted for this cartridge case is either copper or brass. The forms of case are as various as the number of inventors of rifles and cartridges, but they are all made of either pure copper, or of the alloy of copper and spelter, known as brass. Of all, the most complex is that in use in the English army, and known as the Snider cartridge. On a future occasion we propose to speak of the relative merits of the different kinds of cartridge cases, and of the modes of manufacturing them; but, for the present, let us ask what this decision of the German military authorities means as regards its influence on copper? Why, it means this, that there must be stored in the arsenals of the German empire enough cartridges enveloped in copper or brass to supply their vast hosts of fighting men, when she may be called on again to send her armies into the field. Many and many a ton of copper will thus be abstracted from our floating stock, and we may consider that we have added another permanent customer for our copper produce. It would be a more pleasant task to dilate on the appliances of peaceful life, but in the face of the advantages which France must eventually derive from the exposure of her own rottenness—political, social, and moral—in the "Slough of Despond" through which she has lately passed, it is impossible but to think that there are necessary means of overthrowing tyrants, and awakening nations to a just sense of their individual and collective responsibilities.

## THE DEVELOPMENT OF THE SOUTH WALES COAL FIELD.

The development of the almost unbounded resources of South Wales is a matter not only of paramount importance to the Principality, but is a subject of national interest. Without speculating upon the vexed and much controverted question of the duration of our coal fields, we make bold enough to affirm that, so far as South Wales is concerned, her mineral resources have, comparatively speaking, only just been tapped, that there are vast areas of the most highly-prized coal untouched, and that, worked to the very utmost extent possible, no fear need be entertained of a falling off in the supply of the precious diamonds from that district for many generations yet to come. South Wales is the youngest of our coal fields, its seams are more easily worked, and to its proper development, therefore, we shall have gradually to look for a supply of its mineral deposits as the yield in the older and more exhausted districts gradually decreases. We do not wish to infer that there will be any appreciable diminution in the output from the northern coal basin during moderate limitations, but we regard Wales as a future national store, whose valuable treasures have scarcely been approached, but which are destined to become more and more appreciated as time rolls on, and as the demand increases. The better development of the South Wales coal field is, therefore, a matter of considerable importance, and one of the greatest interest to all connected with the staple trades of the country.

Up to the present moment the commercial destinies of Wales have been in the keeping of the Great Western Railway. However valuable and exhaustless the deposits of any district, however enterprising the merchants and the manufacturers, all are comparatively worthless without adequate railway facilities, and the means of easy and direct transit. How Wales has hitherto yearned for better means of access to the shipping ports and great centres of manufacturing consumption—how her colliery proprietors, her ironmasters, and her merchants have struggled against innumerable difficulties in the transit of their minerals and goods—how the whole trade of the district has been hampered for want of the narrow-gauge and proper railway facilities, need not now be referred to—suffice it to say that the Great Western Company, by their persistent disregard of the requirements of the coal and iron trades, ignoring the claims of the commercial interests of Wales generally, have pursued a most suicidal policy, and has hitherto prevented Wales from taking that prominent position in the commercial world to which she is entitled by reason of her unbounded mineral wealth. It is, however, a matter of satisfaction to find that there is now every probability that the former state of things is likely to pass away. The present directorate of the Great Western Railway, wiser in their day and generation than their predecessors, are evidently anxious to promote a healthy expansion of the trade of South Wales, and have initiated measures which, when carried out in their entirety, can scarcely fail to afford a stimulus to the iron and coal trades of the Principality of which we can now form but an inadequate conception.

There are three schemes prominently before the commercial world by which, conjointly, the Great Western propose to secure this great desideratum—the laying down the narrow gauge over the whole South Wales system—the carrying out of the Severn tunnel scheme, and the purchasing of the Swansea canal, with the view of carrying a line of rail up the important mining and manufacturing district of the Swansea Valley. With regard to each of these schemes, signs are not wanting that the company are prepared to carry out their execution without unnecessary delay. The traders of the district have been so often disappointed in the realisation of their ardent wishes, consequent upon the oft-broken promises of the board of directors, that we should naturally hesitate to hold out any hope of relief had not our enquiries guaranteed the truth of our remarks. With regard to the first means of development—the laying down the narrow gauge—our readers are already aware that it is in process of being carried out. We believe it was in the year 1854 that a memorial, signed by about 700 of the principal colliery proprietors, ironmasters, and merchants of South Wales, was sent to the Great Western Company, urgently demanding the narrow gauge as the only means of transit which would effectual suit the district. The narrow gauge was promised, but there the matter ended, and for 17 long years the traders have struggled on in the transit of minerals and goods in the face of obstacles which perseverance and determination alone can surmount. We are now on the eve of better times, and we are firmly of opinion that upon the completion of the narrow gauge not only will the whole trade of Wales be greatly enhanced, and the transit of minerals expedited, but that in a pecuniary point of view the Great Western Company will have no cause for regret the outlay made, considerable as that outlay must necessarily be.

The second scheme—the completion of the Severn tunnel—is one from which the greatest good is naturally anticipated. The present route between South Wales and Bristol and the West of England is practically useless so far as the carriage of coals and of heavy goods is concerned, whilst access to the metropolis and many of the large manufacturing centres can only be obtained by most circuitous and expensive routes. Of three schemes propounded for solving the difficulty of crossing the Severn, so as to best meet the requirements of the whole district, the Great Western has espoused that of making a



tunnel underneath the Severn, between the New Passage and Portkewett, and they have given notice of their intention to proceed during the next session of Parliament for power to carry this project into effect. This scheme is that generally known as that of the RICHARDSON'S plan (it being designed by that very talented engineer, Mr. CHARLES RICHARDSON), and it commends itself to public approval, from the fact that it can be carried out for a comparatively small sum—that the formation of the bed of the river is admirably adapted for the work; and, lastly, that it will open up for the coal of South Wales the most easy and direct route to the whole of the West of England and Bristol, and other large ports, a consideration of great importance, having regard to the fact that the one great want of these ports is "back freights" for the vessels which bring home large imports of grain, sugar, and other commodities. This scheme of the Great Western Company will, unquestionably, go before the parliamentary committee, backed by the powerful support of the merchants and traders of Bristol and the West of England generally, together with that of many of the large colliery proprietors and ironmasters of the South Wales district, and we can scarcely doubt the result.

The third scheme, the purchase of the rights of the Swansea Canal Company, must be regarded more of a local than general character, but the making of a line of rail up through the Swansea Valley will be a great boon to the many large ironworks and manufacturers of that district, and give the necessary accommodation to important coal fields, which now lack the necessary means of obtaining easy access with the important port of Swansea. The railway company have given the necessary notice of their intention to apply to Parliament during the ensuing session for power to purchase all the existing rights of the Canal Company; and, although the scheme may be opposed by a few interested individuals, probably the company will show such a strong case that Parliament will not hesitate granting so great a boon to the district.

We have now given a very brief outline of the schemes which the Great Western Railway Company propose for the better development of the South Wales coal fields. Whatever has led to this evident desire to expand the trade of the Principality on the part of the Great Western, or whatever the result of the applications to Parliament, it is a matter of the greatest satisfaction to find that the directors are alive to the importance and necessity of providing adequate means of transit for the precious minerals of the district, and are anxious to meet the rapidly expanding trade, which, despite the many difficulties it has still to contend with, is now setting in throughout the chief centres of the Principality. The Great Western Company, on its part, should remember that it no longer obtains a monopoly of the district; the Midland and the London and North-Western Companies have, by dint of hard fighting and perseverance, at length obtained a footing on Welsh soil, and will unquestionably advance strong claims for the support of the traders generally. The Great Western is, however, the legitimate line of the country, and although in times past it has, to a great extent, ignored the claims of the colliery proprietors and traders generally, a sincere desire to make amends for past neglect would be universally recognised and warmly appreciated; and strong inducements, indeed, would have to be held out by other companies before the public generally could be induced to discard the pioneer of railway enterprise into Wales, and to which all are unquestionably under a lasting debt of gratitude, in favour of younger and untried rivals.

**COLLIERY EXPLOSIONS, AND THEIR PREVENTION.**—In the Supplement to this day's Journal will be found the abstract of an important paper read before the South Wales Institute of Engineers by Mr. THOMAS JOSEPH, wherein the mode of working fiery seams with almost total immunity from accidents through explosions is carefully explained. As Mr. Joseph and his pupils having during the past 35 years opened upwards of 5000 acres of the notoriously fiery coal of the Aberdare, Merthyr, and Rhondda Valleys, with the loss of only six lives from explosion, some opinion may be formed of the practical value of the system adopted, which consists essentially of working always to the dip instead of the rise, by which means the seams and adjoining strata are kept completely drained of the explosive gases. Nor is the supposed advantage of facilitating haulage to the pit's bottom resulting from working to the rise lost, for Mr. Joseph puts out occasional horizontal haulage levels, and thus draws much of the coal from a shallower depth than is usual on the other system of working. It will be obvious that the system, with slight necessary modifications for altered circumstances, would be applicable for other districts than South Wales, and for long wall and pillar and stall workings equally. Indeed, it is questionable whether, in the case of many existing collieries now scarcely workable from their liability to explosion, it would not be a wise economy to put down an additional shaft to the rise, and make all shafts on the dip side of the workings downcasts. By such an arrangement the haulage and drawing might often be continued almost as at present, and the necessary changes in the air-courses could be made without laying the pit idle more than a few days, and with little or no risk to life or limb. The whole subject is one so full of interest that it appears most desirable that it should be thoroughly discussed by colliery viewers and colliery engineers.

**THE EXPORT COAL TRADE.**—The exports of coal from the United Kingdom amounted in October to 1,292,271 tons, as compared with 953,499 tons in October, 1870, and 987,946 tons in October, 1869. The exports to France have again attained considerable importance, having amounted in October to 168,962 tons, against 90,104 tons in October, 1870, and 146,303 tons in October, 1869. In the ten months ending October 31 this year, the aggregate exports of coal from the United Kingdom were 10,651,001 tons, against 9,784,497 tons in October, 1870, and 9,029,751 tons in October, 1869. In these totals the exports to Germany figured for 2,109,025 tons, 1,899,806 tons, and 1,417,530 tons respectively; and those to France for 1,577,285 tons, 1,899,806 tons, and 1,649,135 tons respectively. The exports of coal from the United Kingdom have increased this year to Russia, Germany, Holland, Italy, Brazil, and British India; but they have decreased to Sweden, Denmark, and Spain. The value of the coal exported in October was £45,838L, against £58,464L in October, 1870, and £46,717L in October, 1869; and in the ten months ending October 31 this year, 5,135,800L, against £4,688,964L in the corresponding period of 1870, and £4,330,938L in the corresponding period of 1869.

**THE BESSEMER ORDNANCE.**—The great gun that is being manufactured, in accordance with the patented improvements of Mr. Henry Bessemer, is rapidly approaching completion. This monster cannon is calculated to carry a ball of 700 lbs., with a force equal to the battering in of any entire plate of an iron-clad vessel, and taking it completely through the opposite side, the vessel the while being crumpled up like a deal match-box. There absolutely appears to be no exaggeration in this statement.

**LEAD IN JERSEY.**—The Pulec Lead Mines have been inspected and reported upon by Captain JOHN RUMFREY. The silver-lead lode or vein which constitutes the mine is situated at l'Eac, St. Ouen's, Jersey. The lode is about 2 ft. wide, 1 ft. of which is rich lead ore. The general matrix of the lode is carbonate of lime, white and brown quartz, red and white felspar, and radiated iron pyrites. With regard to the nature and quality of the ore now being raised at the very surface, Capt. RUMFREY considers it is beyond all dispute, even to the inexperienced eye, and he thinks it will become much richer in depth, and he believes that with a moderate outlay ample returns would soon be made. Mr. OGIER has also made a long report in French, in which he refers in the most enthusiastic terms to the geological conditions which led to the separation of Jersey from Sark, where his colleague, Capt. RUMFREY, has had some experience in silver mining. Mr. OGIER seems to regret that the islands of Sark and Jersey have been so violently separated from each other, and adds that if the geologist could retain any doubts upon the subject they would be removed by observing that Nature, admirable in her logical manifestations, has deposited identical treasures in both islands—lead, sulphur, arsenic, tin, copper, antimony, and silver—and that there is the mathematical certainty of finding at Pulec the metalliferous vein the other end of which they have shown to exist in Sark—"a silver ribbon that the sea has sought in vain to hide

beneath its billows." Upon approaching the mines he observed a strong smell of hydrosulphuric and sulphurous acid gas, coming, he concludes, from the natural combination of sulphur, iron, and the oxygen of the ambient air, exhaling an odour of rotten eggs. He explains trigonometrically where the shafts should be put down, and concludes that 1000L in the hands of an efficient English mining engineer would suffice to prove with certainty the positive or negative value of the mines.

**PITCHBLEND.**—At the Royal Institution of Cornwall meeting, on Tuesday, Mr. W. J. HENWOOD, F.R.S. (the president), referred to a specimen of pitchblende presented by Mr. R. PEARSE. During the last summer he had been engaged in inspecting valuable mines of silver and gold in Nevada, and whilst there recognised among the rejected rubbish pitchblende—the oxide of uranium. The miners said it gave them much trouble, and were astonished to learn it was worth so much—400L per ton. Pitchblende, though by no means abundant in Cornwall, had long been known. More than 50 years since it was found in St. Just, by Mr. CARNE. Some hundredweights were sold from Providence Mines 20 years since, but realised only 30L per ton. It had also occurred elsewhere, and had been brought to light at Wheal Trench with the disappointment of the anticipations which had been entertained by the smelter, who thought he had a large proportion of valuable black copper ore.

#### NEW IRONSTONE DISTRICT.

A prospectus is issued of the LEICESTERSHIRE IRONSTONE AND SMELTING COMPANY (Limited), requiring a capital of 200,000L, in 20,000 shares of 10L each. The object of the company is to purchase an eligible agricultural estate of 1000 acres or thereabouts, producing a rental of 2000L. Beneath the rich soil of this estate is found to exist extensive beds of ironstone of a higher percentage than that of Cleveland, and the most appropriate of oolitic ores for the manufacture of pig-iron, for which, just now, there is an unprecedented demand. The quantity of workable iron ore, according to Mr. Roseby's estimates, is 16,000,000 tons, without taking into account a deeper body which is said to extend under nearly the whole area of the estate. The price to be paid for the freehold is 138,000L—110,000L in cash and 28,000L in shares fully paid-up, a price which may be considered very moderate, as it represents only about a farthing a ton for the iron ore, without any royalty to be paid. Another favourable feature of the company is that its actual value for agricultural purposes alone is estimated at nearly one-half the purchase money. The value of the iron ore has been tested practically by Mr. Giers, whose opinion is to be fully relied upon, and it is a very significant and important fact in the advent of these new works that one of the largest railmakers in the kingdom has offered to take 50,000 tons of iron to be made from the ore at a price which will yield a very substantial profit. The board of directors is a strong one, and consists of Mr. J. Berger Spence as Chairman, whose extensive and practical experience in minerals and metals entitles him to confidence; the Right Hon. Lord Keane, Mr. T. McCullagh Torrens, M.P., Mr. W. Coghlan, and Mr. W. B. Fox.

We have all along advocated in our columns the opening up of fresh sources of supply of ironstone in our own country, where there is plenty, instead of fetching it long distances from abroad; and we hail with much pleasure this pioneer company in its movement rather further north of the wondrous iron district, and we can but think, from the data put forward in the prospectus on such high authority, that the work will be carefully and skilfully managed, and will add another profitable iron undertaking to this important branch of our industries.

The simple statistical facts of the iron trade, which appeared in our last week's Journal, speak volumes more than expressions of opinion as to its expansiveness. But, instead of 27,500,000 sterling of iron and steel exports in the ten months, as mentioned, the hardware and cutlery exports ought to have been added, which would have swelled the enormous total to over 31,500,000 sterling!

With these facts before us, coupled with another fact, that the demand for iron ores of certain qualities is greater than the supply, it does appear probable that iron mining is about to leap out of the trite adventure into quiet and quarry-like calculation of profits, even should the price of iron not go on increasing, as it is more likely to do than not; the stocks being short, the make absorbed, and the demand great and constant.

#### REPORT FROM SCOTLAND.

Nov. 15.—The warrant market kept very quiet and steady throughout last week, the price continuing about 66s. to 66s. 6d. until Friday, when 67s. 6d. cash was paid. On Monday there was a very much brisker demand, and a large business done at from 68s. to 69s. 3d. cash. Yesterday the market was somewhat irregular. It opened at 68s. 9d., receded to 68s. 1½d., and advanced again to 68s. 9d. cash, closing with buyers at that price, and sellers at 69s. To-day the business done has been comparatively limited, and the prices rather easier—68s. 1½d. to 68s. 4½d. cash, and 68s. 6d. to 68s. 9d. one month, closing steadily at the higher figures. The demand for iron seems unabated, and another decided advance has taken place in the prices of makers' iron. The exports are still excessive, while the imports from Middlesbrough, on account of the great scarcity of iron in that quarter, are much less than was anticipated:—

	No. 1.	No. 2.
G. M. brands at Glasgow (deliverable alongside).....	70s. 0d.	68s. 6d.
Gartsherris ditto.....	81 0	70 6
Coltness ditto.....	81 0	70 6
Summerlee ditto.....	76 0	68 6
Carabroo ditto.....	72 0	68 0
Langloan, at Port Dundas ditto.....	74 0	69 0
Calder ditto.....	76 0	69 0
Glenarnock at Ardrossan ditto.....	77 0	70 0
Dalmellington ditto.....	70 0	69 0
Eglington ditto.....	70 0	69 0
Carron at Grangemouth ditto.....	70 0	69 0
" ditto (selected) ditto.....	75 0	68 6
Shotts ditto.....	74 0	68 6
Kinnell at Boness ditto.....	73 0	67 6
G. M. brands at Middlesbrough ditto.....	69 0	65 6
Bar iron.....	25 15	0 29 0 0
Nail rods.....	9 0	0

	SHIPMENTS.	Tons
For the week ending Nov. 11, 1871.....	18,636	
" Nov. 12, 1870.....	10,357	

Increase.....	8,279
Total increase since December 25, 1870.....	179,622

The manufacture of Malleable Iron is being pursued at all the works with unwonted vigour, and buyers are paying unreluctantly the advanced quotations for all kinds of bars. Angles are being specified more freely, and makers of ship-plates are again asking an advance of 10s. per ton. Bars and angles have also a rather upward tendency. Iron for engineering and other ship purposes are also in demand, with prices veering to an advance. Copperworkers and brassfounders are all busy, and locomotive and tube-makers have their hands full of work. There seems to be a disposition amongst the workers in metals to aim at a reduction of their hours of labour to nine hours per day, and this feeling is extending to other towns in Scotland, so that we may see a nine-hours working day made the standard for labour throughout Scotland before many months elapse.

For Coals there is so large a demand that the output brought forward to market is insufficient to supply, and coalmasters are being saddled with demurrage expenses, on account of the detention of vessels in port. During the week we had an opportunity of a run through the Wishaw district, and observed on the sidings along the lines of railway great numbers of loaded wagons waiting for haulage to bring them to market. It was also noticeable that at the numerous pits there were almost no "bings" of coals, as at this time last year, but every available hutch as it comes to bank is hurriedly screened, and sent forward to its destination. The shipments for the week were 46,569 tons, against 29,022 tons in the corresponding week last year, the principal portion of the foreign exports being shipped from Grangemouth and Leith to North European ports. The colliers (who are making a fair wage) are agitating for an advance of wages in several districts of from 6d. to 9d. per day, but do not seem disposed to strike. Several meetings are called for this week with

the view of securing simultaneous action in all the coal districts of Lanarkshire.

We regret to state that the books of Mr. Thomas Thorburn, iron merchant, has had to be put into the hands of an accountant. The liabilities incurred, it is said, almost entirely through "bearing," amount to from 18,000L to 22,000L, and it is worthy of note that this gentleman had about three months ago a sum at his credit in the bank in cash equal to the highest amount stated. We trust the suspension will only be temporary, and will be arranged without difficulty to the parties concerned. We have heard that Mr. Thorburn has still a considerable sum in cash lying at his bank credit, which will be cheerfully given up to meet the liabilities.

The prosperity of the shipbuilding on the Clyde is certainly very gratifying to all engaged in it, and is attracting new adventures. The shipbuilding business at Govan, which was recently suspended for a time owing to the death of the late Mr. John Doble, has been resumed by a new co-partnership, who will carry on the concern in all its various branches. Mr. James Young, who was a long time with the firm of Doble and Co., is to continue the principal practical superintendence, and that gentleman, along with Mr. John William Johnston, son of the late Mr. James Johnston, formerly of the Colpin Ironworks, near St. Petersburg, will continue the business under the name of the old firm.

It is rumoured that the fleet of steamers employed by the Messrs. Allan, of Glasgow, in the North American trade, has been purchased by the new shipping and shipbuilding firm at Barron-in-Furness, of which the Duke of Devonshire is one of the principal shareholders, and of which ex-Battle Duncan, of Port-Glasgow, is managing director.

Yesterday the fourth of five vessels building on the Clyde for the Stoomvaart Nederland Company was launched. It is an iron screw steamer of 3000 tons gross, and was named the Conrad. She will be employed in the company's service between Amsterdam and Java via the Suez Canal, and is of the following dimensions:—Length between perpendiculars, 350 ft.; breadth, 39 ft.; depth moulded, 31 ft. In her construction and equipment she has been fitted with all the latest improvements. The engines are on the compound principle.

**COURTS OF CONCILIATION AND ARBITRATION.**—At a meeting of our Chamber of Commerce, this week, a letter was read from Mr. A. McDonald, writer—who is acting on behalf of Trades Associations here—intimating that, in answer to their request, Mr. Mundella, M.P., was willing to address a public meeting on the question of the formation of Courts of Conciliation between masters and employees. He was also of opinion that he could induce Mr. Brassey, M.P., to accompany him in his visit, if his correspondents here could secure them an invitation from the Chamber of Commerce. Ultimately, on the suggestion of Mr. Walter Patterson, the Chamber agreed to invite Mr. Mundella, and through him Mr. Brassey, to come to Glasgow, and the secretary was instructed to write to Mr. McDonald, as representing the associated trades, stating that this had been done.

The strikes in the West of Scotland have been so numerous of late that we hail with delight the prospect of means being devised to avoid them.

**DISCOVERY OF A SCOTCH PLANT FOR MAKING CLOTH AND PAPER.**—A correspondent writes: Mr. R. Smith, chemist, Blackford, Perthshire, has discovered a fibrous plant—the *Senecio Jacobaea*, or common ragwort—which is believed to be well adapted for the manufacture of cloth and paper. It contains a large amount of fibre, and grows in profusion on waste lands and pasture fields, and could be cultivated to any extent.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Nov. 16.—The necessary official notice has been given of an intention to apply to Parliament next session for "powers" to constitute and incorporate commissioners to carry out an effectual drainage of the flooded mines in North Staffordshire. The powers to be vested in the commissioners include the right to levy rates on the mines and other property benefited. The announcement of the scheme, full reference to which was made in a previous report, has given much satisfaction in the district. There is no falling off in the demand for coal and ironstone at last quotations. The Iron Trade is very brisk alike in the pig and finished departments, and there is every prospect of a continuance of activity throughout the winter.

In South Staffordshire the Coal Trade is exceedingly buoyant, and quotations are satisfactorily maintained. The output of the collieries is inadequate to the demand, owing in great measure to the irregularity with which the colliers are working since the recent advance in wages, and large consumers are, in consequence, considerably dependent for their supplies upon the outlying districts. The discovery of a new coal measure at Hales Owen, to which we alluded last week, is regarded very hopefully, as giving promise to South Staffordshire of a long lease of industrial prosperity. The trial sinking at Sandwell Park is now making satisfactory progress. There is a very brisk demand for ironstone of all descriptions, but the local supply is only of limited extent. It is said that Messrs. Addenbrooke, Smith, and Pidcock will shortly commence the development of the minerals under the Besoot Hall Estate, purchased by them a few weeks ago.

The Iron Trade of the district very fully sustains the buoyancy recently reported, pig and finished iron being alike in brisk request. The number of furnaces now in blast is 120, yielding a weekly average of 13,200 tons. The 1600 puddling-furnaces now at work consume 16,000 tons of pigs weekly, so that the district has to "import" some 2800 tons of pigs per week for puddling alone, to say nothing of the requirements of the foundries. All-mine pigs of local produce are firm, at 4½s. to 4½s. 10s. per ton. In the finished iron department the demand is especially brisk for bars, rods, gas-strip, girder-plates, and galvanised sheets. Marked bars range from 8½s. 10s. to 9½s. per ton, and all other descriptions are proportionately firm. Rails are in active request, but the production in this district is of limited extent. The District Iron and Steel Company have just taken and put into operation the Church Lane Ironworks at Tipton, and Messrs. Maddock and Co. have recently started the Brickhouse Lane Works at West Bromwich. The new forge and rolling-mill of Messrs. G. C. and R. Lees, at Albion, will be in full operation very shortly, and the same may be said of the works in the same neighbourhood, formerly carried on by the Messrs. Legge.

Three new railway schemes are being projected in South Staffordshire—one from Wolverhampton to Brewood (a suburban line); another from Wolverhampton to Bridgnorth, in Shropshire; and a third from Walsall to Water Orton, on the Midland line. Should the latter succeed the existing monopoly among the carrying companies serving this district will be effectually abolished, as it deserves to be.

The ironfounders in the district are fully occupied with orders for mill and forge machinery, the Cleveland district being a prominent source of demand. Gas and water mains, hollow-ware, and builders' castings are in actively sustained request. The tube mills at Wednesbury are in very buoyant operation, and there is every prospect of the activity being continued throughout the winter.

The Earl of Dudley's agent (Mr. Fisher Smith) has conceded the nine hours system to the men employed at the Castle Mills Factory; and Mr. Woodhall, the gasholder maker, of Windmill End, has done so likewise. Messrs. Cochrane and Co., of Woodside, were the first to set the example in this part of the district.

Some excellent samples of hematite ironstone from Ireland have been exhibited on "Change" this week by Mr. James Saunders, of Wolverhampton. The analysis of this ore showed that it was capable of making good pig-iron for steel purposes, containing about 7 per cent. of manganese. A fair number of orders have been booked by the local ironmasters.

#### REPORT FROM DERBYSHIRE AND YORKSHIRE.

Nov. 16.—Activity still prevails at the ironworks and collieries in Derbyshire. The demand for gas and water-pipes is brisk, whilst the mills are kept well going in rails, plates, &c. In Derby the foundries and forges continue to be well employed, and the nine hours movement has been so far successful in the town that the Midland Railway Company have adopted the system at their plant, where nearly 200 persons are employed, whilst in many other districts it has also been agreed to on the part of the employers. An excellent business is being done in Coal for London and the south, both for home and other purposes, from Clay Cross, Langley, Eckington, Codnor Park, &c. Gas coal is also in request, and a large tonnage is being sent over the Midland to Birmingham and the West of England. The Staveley Company's pits are turning out a large quantity of coal, as is the case at Sheepbridge, where there are five furnaces in blast, the "pig," both cold and hot blast, finding ready markets in Sheffield and other places. Surveyors and others have of late been busily engaged in surveying the proposed line, to which allusion was made some time since, from a point between Sheffield and Chesterfield to Hassop, on the Derby and Buxton Railway. The line will do much towards developing the lead ore in the districts through which it passes, it being the only thing needful for that purpose. It will also give access for the coal from Unstone and other places to localities that have been entirely debarred from all railway communication. At Ilkeston, and other places in the Erewash Valley line, the Midland Company are extending their railway system to several mining districts, with the view of giving facilities to colliery proprietors for more fully developing their coal fields.

There has been no change in the Sheffield trades during the past week, nearly every department being well supplied with orders. The two great firms noted all over the world for the production of heavy armour-plates, shields, and similar war material, are as busy as they can be, not only in those important branches, but also in Bessemer rails, tyres, axles, &c. It would appear that the laying down of Bessemer rails, in place of those made of iron, is proceeding more rapidly than might be supposed. It appears that in the Grand Trunk of Canada Railway nearly the whole line will be re-laid with Bessemer rails, the company last year having entered into a contract for 40,000 tons, 14,000 to be delivered next year, and the same quantity in 1873. Still, large is the business done in steel rails, there is no falling off in the demand for those made of iron; indeed, railway



material of every description, from springs, to rails and locomotives, are in request. Makers of cutlery of the best quality, both table and spring, are fully worked, and there is now more doing in inferior qualities. The American trade is active, and considerable quantities of plain and manufactured steel are being sent there. There is also rather more doing with the Continent, the business doing in that direction fast getting into the old form. At Mather, the Holmes, and Rothman the ironworks and brass foundries are all doing well. Rails, plates, weldable tyres, stoves, grates, and light castings are amongst the productions in most request. The collieries in the district named continue to be well employed. At the Roundwood Colliery, of Messrs. Cooper and Sellers, there is every prospect of an extensive business being done when working has been fairly commenced. At the present time some large Cornish boilers are being made for the firm. At the same works five large Cornish boilers are also being made, each weighing from 14 to 15 tons, for Earl Fitzwilliam's new colliery, at Lower Stubbins, near Parkgate. The whole of the collieries throughout the South Yorkshire district are busy, and a very large tonnage continues to be sent to the metropolis over the Great Northern. Steam qualities for shipment from the Thames, and also for the use of the vessels plying on the river, are in brisk request, the tonnage going being larger than ever it has been. To Grimsby and Hull the trade continues active, and shipments to several of the Baltic ports have been continued to a much later period of the year than usual. A good deal more coal is now being sent into France, confidence in a great measure being restored. Furnace Coal and Coke continue in excellent request for North Lincolnshire and other places. The business doing with Lancashire, especially in engine fuel, is more active than it has been during the year, and a considerable tonnage is being forwarded to Stalybridge, Ardwick, Gorton, Newton, and Glossop. The collieries were never, taken altogether, so busy as they are now, and both coalowners and workmen appear perfectly satisfied with the existing state of things. The railway amalgamations, however, if carried out as proposed, will not unlikely lead to some considerable alteration, so that the progress made by the Great Northern and North-Eastern on the one hand, and the Midland and Manchester, Sheffield and Lincolnshire on the other, towards merging into two instead of four companies, is watched with much interest.

#### REPORT FROM MONMOUTH AND SOUTH WALES.

Nov. 16.—As far as the remainder of this year is concerned, all connected with the Iron Trade may well rest content, the orders on the books at present being sufficient to afford ample employment for the next six weeks or two months at least. As compared with this time last year there is great improvement in the iron trade, and prospects still continue to give encouragement. Makers not only have no difficulty in securing contracts, but it is quite impossible in all instances that they can meet the demand. A scarcity of raw materials is complained of, stocks of pigs being entirely cleared, and rail and bar makers have now to depend entirely upon the daily production, which, although so large, is inadequate to the requirements of finished iron makers. Buyers are, however, still unwilling to submit to an advance in quotations, and makers are satisfied with finding full work for their men for the next month or six weeks, and waiting to see what changes may take place in the beginning of the next year. The demand for rails on account of various parts of America continues active, and orders still point to vast requirements. Next year will probably witness a larger exportation trade than ever has been doing for the last six months. To many of the leading European markets there is now a falling off in the enquiry, as is usual at this time of the year, but in southern sections rail and bar iron is in good request. Home business shows further improvement, and there is every prospect of a very large proportion of the make of the district being required for home consumption. Buyers submit to prices with less reluctance than they did some weeks ago, the conviction having spread that quotations must sooner or later be enhanced. In addition to a large enquiry for rails, bars and plates especially are in active request. Prices are increasing in America, but the effect on values is but slight. Pig-iron is largely produced, and makers continue to increase their means of production.

In Tin-Plates there is scarcely anything new to notice. The demand is without material change, the works being kept in full employment, and prospects are encouraging for some time to come. A rise in quotations is looked forward to.

Steam Coal proprietors are doing a large business, the trade having resumed its former activity with, perhaps, some improvement upon the state of things which prevailed twelve months ago. Better prices are obtained, it must be admitted than for a long time past, and as far as can be seen, present quotations are likely to be kept up. The output is still below the quantity required by merchants to supply their foreign customers, and it is difficult to see what reason the colliers have for still persisting in working irregularly. A good future is before the trade, and colliery proprietors are looking forward with confidence. For house qualities it may be said that a good winter's demand has set in, and there is little fear as to the position of the trade for the next three months at least. The wages question remains in abeyance, but it is expected that a satisfactory understanding will be come to between masters and men.

Reports were laid before the Cardiff Chamber of Commerce this week as to the result of the trials of Welsh coals in the Navy. The reports were favourable, it being stated that the smokeless steam coal of South Wales was one-third better than any that could be procured. Regret was felt that some of the members who were most intimately connected with the coal did not go into the matter, and compile more minute information than that which was submitted to the Chamber; and a hope was expressed that the representatives of the various constituencies in Parliament would take the matter up in earnest, and allow North Country coal, which is inferior in quality, to have precedence. General satisfaction is felt in the district as to the result of the trials.

We are informed Messrs. Richard Thomas and Co., of the Lydbrook Tin-plate Works, have purchased a portion of the Titanic Steel Company's plant, and intend at once erecting two new tin mills, thereby doubling their present output. We wish this spirited firm every success; at the same time, however, it must not be forgotten that although tin-plate makers may, perhaps, with reason expect a good 12 months' trade, yet the large extensions of existing works, added to those in process of erection, will, we fear, shortly place this important manufacture in the same sad state that it has been in during the past four years.

The arrivals at Swansea include—The Azores Packet, from Bilbao with 188 tons of iron ore, for Downlands Iron Company; the Village Belle, from Bilbao, with 317 tons of iron ore, for H. Bell and Son; the Mela, from Bilbao, with 185 tons of iron ore, for R. H. Bell and Son; the Edith, from Bilbao, with 273 tons of iron ore, for W. H. Tucker; the Sunshine, from Bilbao, with 320 tons of copper ore, for H. Bath and Son; the Euphonia, from Bilbao, with 170 tons of iron ore, for T. Wood and Company; the Palermo, from Bilbao, with 200 tons of iron ore, for R. H. Rowland; the Rose of England, from Talait and Paposo, with 407 tons of copper regulus, and 185 tons of copper ore, for Elford, Williams, and Company; the Jeanne Armes, from Bilbao, with 180 tons of iron ore, for T. Wood and Company; the Antonio Vincent, from Port Norfolk, with 65 tons of copper ore, for Richardson and Company; the Orlon, from Bilbao, with 350 tons of iron ore, for Richardson and Company; the Sir William Pulteney, from Bilbao, with 30 tons of iron ore, for H. Bath and Son; the Kate, from Almeria, with 122 tons of copper ore, and 89 tons of sparto grass, for M. Bell; the Maggie, from Bilbao, with 336 tons of iron ore, for Polingdestre and Messier.

#### TRADE OF THE TYNE AND WEAR.

Nov. 16.—The shipments of coal, coke, and iron, continue large, and the trade of the district generally is very brisk; consequently, the prices of most of the staple commodities are firm and rising. This applies not only to coal of all kinds and iron, but also to chemicals, for which there is a brisk demand.

We remarked in this letter some time ago on the winning of the Busty coal seam at Felling Colliery. This seam has now been developed to a considerable extent, and excellent coke is being made from it by the Felling Coal, Iron, and Chemical Company. It is also understood that the Tyne Main old pit, held by the same firm, is to be sunk down shortly to the Busty seam, and a communication made between those two shafts. The Heworth Colliery immediately adjoins Felling Colliery on the south, and it is a very old work, the Hutton seam having been worked here nearly 50 years, and it is still worked, although to a great extent exhausted. The Low Main seam, also a good steam coal, is now worked here, and a shaft is to be commenced immediately to sink below the Hutton seam, in order, if possible, to reach the Busty seam, referred to above, so that the winning of this seam by the enterprise of the Felling owners is likely to lead to the winning of the same seam over a large area in the north-east district of Durham.

Considerable excitement prevails in the coast towns—Sunderland, Hartlepool, &c.—respecting the formation of a coast line of railway which is proposed to be formed direct from Sunderland to Seaham, Hartlepool, and so on to Middlesbrough. There is no doubt that such a line is most urgently required, and that its formation cannot much longer be delayed. Of course, to effect this it is necessary that a bridge should be constructed over Wear at Sunderland, and also that a bridge should be constructed over the Tees at Middlesbrough, or a tunnel formed under that river. The North-Eastern Railway Company have already determined to erect a high-level bridge over the Wear, which is a most important step. A meeting was held a few days ago at Hartlepool, which was attended by the most influential gentlemen connected with the district, and the majority pledged themselves to support any scheme brought forward to effect this very desirable object.

A considerable amount of agitation exists in some localities in the district, not respecting the rate of wages, but the hours of working. The boys at several works lately, including the Hetton Colliery, have turned out, their object being to get a shorter day's work than twelve hours underground. The mechanics and others employed on the surface at the collieries have already, in many cases, got a reduction in the hours of work similar to those in force at the factories, and this, there is no doubt, will become general all over the district shortly. Only old miners can recollect the

great struggle which took place in 1832, when there was a general strike of the miners in Northumberland and Durham. The main subject of the dispute at that time was the working hours. Previous to that time the hours the pit had to be worked were not fixed, but all the coals hewn in any one day were to be got to bank on the same day; and it was not at all uncommon for boys, and even men, to be employed as much as 16 hours per day. However, this object was achieved, and 12 hours was fixed as the day's work for boys; as to the hewers, their hours were never fixed, they worked always by the piece, and the boys also worked by the piece, so that any reduction in the hours of labour must reduce their earnings, unless a corresponding addition is made in the rate of payment. If we take a pony putter, earning in 12 hours working 2s. 6d. per day, of about the average earnings of this class, and suppose that he is employed eight hours, then his earnings at the same rate would only be 1s. 8d., and he must have an advance of about 40 per cent. to be able to earn the same wages; and if a pit gets 400 tons in 12 hours the same speed of engines will only give 330 tons.

**THE SEATON COLLIERY EXPLOSION.**—An important meeting was held at Seaham, on Monday, which was attended by Mr. Corbett, the chief manager of these works, Mr. Dakers, resident manager, Mr. Edward Boyd, president of the Mining Institute, Mr. Willis and Mr. Southern, Government Inspectors, and others, when a consultation took place on the position of those working where the late explosion took place. It will be recollected that after the explosion it was found that the coal was on fire at a point where the horses and ponies were stabled which were employed in the face workings, where it is supposed the explosion occurred; and in order to extinguish this fire, and prevent any further explosion, it was found necessary to insert two dams at a point near the shafts, thus shutting off the district entirely from the other part of the extensive workings. Pipes were inserted in those dams, and instruments were also attached to show the varying pressure inside those dams, and also the changes of temperature. The party made a most minute examination of the mine workings, as it has been extensively put into practice in New York for several years, with the best results. The soluble matters of the wood are removed speedily and effectually by boiling in a solution of borax (an excellent solvent for sap substances), without in the least affecting the woody fibre, which, on the contrary, becomes harder, impregnable to water, vermin proof, perfectly indifferent to the moisture or dryness of the atmosphere, and almost incombustible. The value of the process for cabinet-makers cannot be overestimated, and as the process is extremely cheap it can be made available for all purposes—even the largest joiner-work when good joints are required. For railway sleepers, and other purposes where the creosote process is resorted to, it is much cheaper than the latter process, and much more effectual.

**BEER'S PROCESS FOR SEASONING AND PRESERVING WOOD.**—The seasoning and preserving of wood without injuring the fibre, or destroying the elasticity of the timber, has long been a desideratum, but it has been found a very difficult matter to accomplish. It is well known to all practical men that wood can only be seasoned in the air by long exposure, and the same remark applies to seasoning by long immersion in water; a long time is required, which, of course, is very costly. With respect to desiccating timber by applying heat and steam, it is extremely objectionable, as the fibres of the wood are injured, and thus the elasticity of the timber is destroyed, and, of course, the cohesion and strength of the wood is very much lessened. The reason for this is obvious—hot water or steam cannot remove the sap, which by the action of the heat becomes coagulated, and being then interposed between the tissues must in such coagulated state materially lessen the cohesion and strength of the wood. The Beer process of seasoning wood differs materially from those, and it is claimed that upon scientific principles it is much superior, and also actual experience has borne this out, as it has been extensively put into practice in New York for several years, with the best results. The soluble matters of the wood are removed speedily and effectually by boiling in a solution of borax (an excellent solvent for sap substances), without in the least affecting the woody fibre, which, on the contrary, becomes harder, impregnable to water, vermin proof, perfectly indifferent to the moisture or dryness of the atmosphere, and almost incombustible. The value of the process for cabinet-makers cannot be overestimated, and as the process is extremely cheap it can be made available for all purposes—even the largest joiner-work when good joints are required. For railway sleepers, and other purposes where the creosote process is resorted to, it is much cheaper than the latter process, and much more effectual.

#### REPORT FROM SOUTH LANCASHIRE AND CHESHIRE.

Nov. 16.—The Iron Trade continues in as healthy a state as when I last wrote, and such is the demand for material of all descriptions that there is even a greater disposition than ever on the part of buyers to give the high prices now asked. The great difficulty is to obtain iron at all, and the excellent position of all departments of trade, increasing as it does the enquiries for boiler plates, colliery rails, and every description of manufactured iron, induces a harder tone in the market, and leads the manufacturers to hold out for full list prices. There is still great demand for coal of every description, and an inclination to a further advance in prices. Cannel especially is becoming very scarce, some of the main sources of supply having lately been worked out. There is a scarcity of labour throughout the colliery districts, and the masters strongly denounce the irregular habits of the men. The colliers are agitating for shorter hours, and their leading men are beginning to see that if they desire to avoid a contest with their employers on this point they must cease having so many "play" days, which are a serious drag on the producing powers of the collieries. A leading colliery proprietor remarked the other day that he would willingly establish a six-hours system at his pits, if the men would undertake to work eleven days in the fortnight.

Another disastrous explosion in the Wigan coal field is reported. The scene of the disaster is the Springs Colliery, belonging to Messrs. Seawroft and Co. (Limited), and situated at Hindley Green. It was at this colliery, and in the same mine—the rich but fiery Arley seam—that took place three years ago within a week the first of the terrible series of explosions which have made the district so notorious. Since that accident the greatest care has been exercised in the management. A new shaft, some 1200 yards from the old one, has been sunk on the rise of the mine, for the purpose of securing effectual ventilation, and a regulation has been strictly enforced that no shot shall be fired or powder used in the seam under any circumstances, except in the night time, when the bulk of the men are out of the pit, and then only to bring down the roof in order to widen the airways and draw-roads. A special fireman has been appointed to superintend the blasting operations; but, notwithstanding all these precautions, an explosion took place on Tuesday night, resulting in the loss of six lives, and in such injury to the fireman that he is not expected to recover. There can scarcely be a doubt that the disaster, like many of its predecessors, is to be attributed to the treacherous nature of the mine, and has resulted from a sudden outburst of gas. The first business at the colliery is, of course, to restore the ventilation; and, fortunately, owing to the extraordinarily direct course taken by the blast, this will not take very long. Stoppings have to be repaired and doors replaced, in order that the ventilation may resume its natural course, and parties of day labourers are now busily at work. There is said to be a good deal of gas at the far end of the workings in the wide work there, but this would exist at any time when the ordinary current of air sent through the seam was checked by the removal of stoppings. Men are stationed near the opening shaft, to test the return air, and report if it becomes charged with gas, though there is no danger, owing to the construction of the furnace, of the gas igniting at this point. The Government Inspector, Mr. Peter Higson, visited the colliery on Thursday, and descended the pit to examine the spot at which the explosion occurred; he was accompanied by the manager, and Mr. C. G. Jackson. The injured fireman, Fairclough, was rather better yesterday morning, and was evidently far more sensible than he has been since the accident. The Coroner will not open the inquest till next week, though he will issue the necessary warrants for burial immediately the jury have viewed the bodies. Little damage was done by the explosion, as the road at the head of the pit was driven against the head gear, and some plates were lifted. The connecting rods were uninjured, but the guide rods at the bottom were smashed. The injured cage remains at the foot of the shaft.

Mr. Hennon, M.P. for Preston, has written to the Mayor of that town, offering a premium of 200l. for the best essays on colliery explosions, to be competed for by miners in the coal fields of Lancashire and Yorkshire, one of the conditions being that "phrasology or spelling shall not influence the decision, but the prizes to be awarded for the most useful and life-preserving suggestion."

At a meeting of the Rochdale Town Council a deputation has been appointed to wait upon the Manchester, Sheffield, and Lincolnshire Railway Company to urge them to apply for running powers to Rochdale, or for the construction of an independent line, connecting the present railway with the town, and to the sea, for the purpose of affording a direct communication. The proposal was opposed by Mr. Robinson, one of the leading merchants of the town, who argued that the time for rivalry in railway competition had gone by, and expressed the belief that before three years passed over all the railways in the country would be merged into four or five great companies. He was of opinion that Parliament should be asked for a general measure giving Government more control over railway matters. This feeling is spreading in the district; it has been shown in Wigan by a resolution of the Town Council in favour of the amalgamation of the London and North-Western and Lancashire and Yorkshire companies.

Messrs. Laird Brothers, of the Birkenhead Ironworks, have adopted the pneumatic system, and a similar concession has been made by the London and North-Western Company to their workmen at Crewe, where they have 5000 hands employed. Reports are published daily of the adoption of the principle in various towns, and last Saturday the movement was advocated at a mass meeting of the workmen employed in the district which lies between Liverpool and Manchester. Mr. Burnett, of Newcastle-upon-Tyne, was the principal speaker, and there was something almost like a threat in the way in which he expressed the hope that the employers of the district would not be so stubborn and pig-headed as the masters of the North, and that the men he addressed would be spared the horrors of a strike.

An endeavour is being made to establish a Chamber of Commerce at St. Helens. The proposal was well received at a preliminary meeting, and a committee has been appointed to carry out details.

Mr. Pearson, who has been elected Mayor of Liverpool for this year, is head of the firm of Messrs. Pearson and Knowles, whose names have been prominently before the public as owners of the Moss Pits, at which the late terrible explosion took place, and who rank amongst the principal ironmasters and colliery proprietors of the district.

In the last number of the *Mining Journal* we notice an extract of the Mining Regulations in Portugal, which appear to be of a very healthy nature, and are based on the true foundation for legitimate mining, as no mine can be brought forward unless it deserves working. But besides this regulation, we learn that the works must be well planned, and shafts sunk at convenient depths to ventilate the mines,

and well timbered, and the mines are regularly visited by the mining inspectors at the Lisbon School of Mines, to enforce the above regulations. Would not such regulations benefit our coal collieries, and be the saving of the lives of hundreds of bread-winners annually?

#### THE VENTILATION OF COAL MINES.

The case of Baker (appellant) v. Turner (respondent) was before the Court of Queen's Bench on Saturday. It was an appeal by Mr. Baker, one of the Inspectors of Mines, against a decision of magistrates dismissing a charge against the defendant, the agent of a colliery near Dudley, for breach of one of the general regulations under the Mines Regulation Act. The regulation was that which requires that an adequate amount of ventilation shall be provided in all coal mines or collieries to render noxious gases harmless to such an extent that the working places of the pits and workings and the travelling roads to and from the workings shall, under ordinary circumstances, be in a fit state for working and passing. On July 7, 1870, about one o'clock in the day, a boy was found dead in a coal mine of which the defendant is agent. The place in which the boy was found had not been worked for a fortnight; and it was a place to which his business did not take him. The place had been tested with a candle between nine and ten in the morning on which the boy died, and no choke-damp was then discovered there. But when the body was found there was choke-damp about two feet from the ground, but not higher. It appeared that air had not been driven into the place at which the boy was found, but would have been driven in if choke-damp had been suspected. There are "gate-roads," as they are called, out parallel to the "air-ways," into which, every seven yards, passages or openings are cut for the purpose of ventilation. The boy was found at the extreme end of one of the gate-roads, about four yards from the nearest air-hole. A candle held up four feet did not for some time seem affected by the damp, so that the boy if standing up would have escaped. He had no business at the spot in question, his own place of work being 80 yards away, and at the spot where he died there had been no working for a fortnight. It was set up that the place was not a "working place" within the meaning of the rule; that the boy had no business there, as his work was elsewhere; and that every proper precaution had been used. The magistrates were of opinion that on the facts set out the ventilation was adequate, and that the defendant had not neglected the regulations under the Mines Regulation Act, 23 and 24 Vict., c. 51, sec. 10; and they found as a fact that the means taken to ensure safety were the means which up to the time in question had been ordinarily adopted, and were under ordinary circumstances sufficient according to the Act. This latter turned out to be the real point, for on the argument the magistrates having over-ruled the objection as to time, and the counsel for the defendant having conceded that the place was a working place within the Act, the case resolved itself into this—whether the magistrates rightly found that the place was adequately ventilated, as to which it was insisted on the part of the defendant that this was a question of fact upon the evidence entirely for the magistrates to determine.

The Lord Chief Justice said the question was whether proper care had been taken in the ventilation of the mine, and that was a question of fact for the magistrates. It was for them to determine the case on the merits, and they had done so in favour of the defendant.

Mr. Justice Blackburn concurred. The magistrates, he said, could not convict unless they found, as a fact, that such means as would ordinarily be sufficient had not been used. But they had found the contrary; and in the face of such a finding it was impossible that this Court could say they were bound to convict. There was no evidence to show that under ordinary circumstances the agent was bound to contemplate the possibility of choke-damp at the time and place in question.

Mr. Justice Mellor also agreed. If the magistrates had found the other way, the Court would not have reversed their decision, but as it was they could not reverse it.—Appeal dismissed.

**IMPROVEMENTS IN STEAM-BOILERS.**—In the manufacture of vertical tubular boilers, Mr. H. ASHTON, of Birkenhead, proposes to construct the shell of cylindrical form, and to fit a circular fire-grate therein, if desired. Flues, by preference two, lead from the fire chamber to the flame chamber around the tubes. The flames and heated gases are caused to circulate horizontally around the tubes before reaching the escape flue, the funnel, or chimney. In practice a central water tube is preferred for the ascending current of water, and an annular space between the shell and tubes for the descending current. Steam is conveyed from the top of the boiler by a pipe, usually bell-mouthed, and such pipe is led downwards through the waste gases, thence by a bend or connection upwards still amongst the waste gases, and finally to the place where it is to be used. In this way it is dried and superheated. To provide for the certain removal of water and foreign matter, angular plates are in some instances fixed in the descending pipe, and a well is provided to collect and valves to withdraw the water carried over. Soot and other matters deposited amongst the tubes in the flame chamber are removed therefrom by admitting steam through a perforated pipe.

**MANUFACTURE OF GAS.**—The invention of Mr. W. W. BOX, of Crayford, relates to a more ready means of securing the lids to the mouthpieces of retorts, and consists in constructing the ears of the mouthpiece on one side with a stop, and the other with a forked opening, which receives a cross-bar, and is hinged thereto in such a manner as to allow of the cross-bar being raised slightly, so as to fall within the stop on the ear. In or near the centre of the cross-bar is pivoted a lever, which is furnished at the end nearest the lid with a friction roller, while the other end is fashioned into a handle. The lid being applied and the cross-bar placed in position, a pull at the long end of the lever causes the short end to press against the lid, and there retains it firmly in contact with the mouthpiece, until intentionally released.

**FEEDING STEAM-BOILERS.**—The improvements in apparatus for heating, feeding, and measuring water supplied to steam-boilers invented by Mr. W. N. COX, of Ashley-road, Bristol, consists of an apparatus in which a float is caused to rise under pressure and close an inlet valve to shut off the flow of water in it, and also to operate a steam-valve to obtain a pressure upon the float to force the water into the boiler. The inflowing water is obtained from a tank heated by the escaping fumes in the chimney. The float is in connection with counting apparatus and the capacity of the vessel is such that the quantity is registered thereby.

**MECHANICAL RELAY FOR TELEGRAPHIC APPARATUS.**—Mr. E. BULL, of Forthurno, near Penzance, has invented a translator, or mechanical relay, for which he claims the same advantages as are possessed by all other relays. He does not describe any improvement or invention in the abridgment of his specification which he has furnished to the Commissioners of Patents, but he explains what a relay is.

**POLISHING METALS.**—The object of the invention of Mr. H. S. SANDERSON, of York-road, Lambeth, is the preparation of blacklead ready for use in a fluid state. The composition adopted consists of blacklead, such as is used for polishing stoves, and for other uses, combined with turpentine, water, and sugar, or saccharine matter, and the proportions which have been found to answer well are to each pound by weight of the blacklead 1 gill of turpentine, 1 gill of water, and 1 oz. of sugar, but these proportions may be varied, and in some cases all the ingredients are not necessary.

**PORTABLE STEAM-BOILERS.**—The invention of Mr. L. J. TODD, of Leith, comprises improvements in the general arrangement of the steam-carrying and improvements in steam-boilers and elastic wheels. The body of the carriage is formed with the ordinary spaces partitioned off at the front end, in which the boiler is placed. The rear axle is straight, on the two extremities outside coupling cranks are fixed, and in front of the boiler there is a cross counter shaft, which also carries coupling cranks to be connected to those of the rear axle. On one side of the boiler, or immediately in front, a small pair of engines is placed, there being a pinion on the crank-shaft gearing into a wheel on the counter shaft. In front of the boiler, and at a convenient width apart, there are two leading wheels, each carried in a separate fork and bracket connected together, and governed by the usual steering apparatus. The second improvement consists in causing the exhaust steam to actuate a turbine blowing-fan for forcing the fire without noise. The third improvement consists in a peculiar conformation of the inner circulating pipes of hanging tube boilers, making the circulation better, and rendering the boiler safe with a smaller quantity of water, so that steam can be got up more rapidly. The fourth improvement consists in a peculiar combination of springs and other parts forming an elastic wheel for steam and other carriages.

**FEEDING STEAM-BOILERS.**—The essential feature of the invention of Mr. ERNST KORTING, of Vienna, consists in utilising the exhaust steam of steam-engines by leading it to a jet of water produced in a boiler injector. It may be made to meet the jet of water either in the overflow chamber or at the circumference of the condensing nozzle through the holes formed in the condensing nozzle, or it may be made to meet the jet of water in the interior of the condensing nozzle passing through the centre of the steam nozzle, or it may be made to meet it at more than one of these places. The exhaust steam utilised in this manner not only heats the feed water, but also facilitates the starting and working of the injector.

**CALCINING ORES.**—Mr. J. BERGER SPENCE, Manchester, describing improvements in furnaces for calcining ores containing sulphur, says:—My improved furnace consists of two or more beds, on which the ore to be calcined is distributed; these beds are made of tiles, supported on hollow cast-iron girders, open at each end. Beneath the lowest bed is a heating chamber. The ore is calcined in the upper beds, and it is gradually raked to the end of the furnace, from whence it drops on to the bed below, along which it is also raked, and passes from the second to the third bed, and so on if more than three are required.



**REAFADDA MINING COMPANY (LIMITED).**—Notice is hereby given, that the FIRST ORDINARY GENERAL MEETING of the Reafadda Mining Company (Limited) will be HELD at the company's office, No. 28, Pall Mall, Manchester, on SATURDAY, the 25th instant, at Ten A.M.

By order of the Directors, J. R. ALDRED, Secretary.

November 16th, 1871.

**PRUSSIAN MINING AND IRONWORKS COMPANY** (PREUSSISCHE BERGWERKE UND HUTTEN ACTIEN GESELLSCHAFT).

GENERAL MEETING.

The regular YEARLY GENERAL MEETING, in accordance with par. 26 of the Statutes, will be HELD on FRIDAY, the 8th day of December of this year, at Eleven o'clock in the forenoon, at the office of our company, 34, Königsallee, Düsseldorf, when the shareholders are requested to attend personally, or to have themselves represented by proxy.

#### ORDERS OF THE DAY.

- 1.—Report of the direction upon the business operations of the past year, ended 31st March last, their results, and the general position of the affairs of the company.
  - 2.—Sanction of a resolution passed by the Council of Supervision in their meeting of the 20th of May, 1871, subject to the sanction of the next general meeting, that the Vorstand shall be empowered, under the sanction of the Council of Supervision, to declare a dividend on account, payable on the 1st July of each year, and to have the shares furnished with coupons for "dividend on account" accordingly.
  - 3.—Drawing, by lot, of 63 numbers of the partial obligations, which, in accordance with the plan of amortisation, are to be paid off at par on 1st July, 1872.
- Referring to par. 25 of our Statutes, the shareholders who wish to exercise their right of voting are requested to deposit their shares or receipts (quittungsbogen, at least eight days before the general meeting, at our office, 34, Königsallee, Düsseldorf; in London, at the office of Messrs. Barclay, Bevan, Tritton, Twells, and Co., 54, Lombard-street; in Dublin, at the Bank of Ireland; or in Cork, at the Cork Steamship Company's office; in exchange for certificates of deposit, and to leave them so deposited during the holding of the general meeting; as also, in the event of a representation by proxy, to have the proxy papers presented at our office here, for examination by the direction, at latest twenty-four hours before the general meeting.
- THE DIRECTION.
- Düsseldorf, the 10th of November, 1871.

**THE WICKLOW COPPER MINING COMPANY.**—Incorporated by Act of Parliament.

At the HALF-YEARLY MEETING of the proprietors of the above company, HELD at their offices, No. 113, Grafton-street, Dublin, on SATURDAY, the 11th day of November, 1871.

OCTAVIUS O'BRIEN, Esq., in the chair.

The notice convening the meeting having been read by the SECRETARY, the common seal of the company was affixed to the Register of Shareholders.

The following resolutions were then proposed and adopted:—

Moved by the CHAIRMAN, seconded by RICHARD WILSON, Esq., and resolved:—

"That the directors' report and statement of accounts for the half-year ended the 1st of September, 1871, be received and adopted."

Moved by the CHAIRMAN, seconded by ROBERT MILLNER, Esq., and resolved:—

"That a dividend of 2s. 6d. per share be now declared upon the 17,000 original shares, for the year ending the 1st September, 1871, payable (free of income tax) to the shareholders now registered in the books of this company upon the 1st day of December proximo."

Moved by the CHAIRMAN, seconded by H. T. KELLY, Esq., and resolved:—

"That Edward Barnes, Esq., and Thomas Worthington, Esq., be and are hereby re-elected directors of this company."

Moved by JOHN HOGAN, Esq., seconded by G. L. TAYLOR, Esq., and resolved:—

"That Marcus Walter Hughes, Esq., be and is hereby appointed auditor for the ensuing year."

OCTAVIUS O'BRIEN, Chairman.

WILLIAM S. KILDAL, Secretary.

Mr. O'Brien having vacated the chair, and John Barton, Esq., having been called thereon,

It was moved by ROBERT MILLNER, Esq., seconded by M. W. HUGHES, Esq., and unanimously resolved:—

"That the special thanks of the meeting be and are hereby accorded to Octavius O'Brien, Esq., Chairman of the company, for his able and explicit statement from the chair; to the board of directors for their attention to and management of the affairs of this company; to Edward Barnes, Esq., for his admirable and successful management at the mine; and that a like vote of thanks be accorded to the secretary."

JOHN BARTON, Chairman.

**SHAMEFUL ATTEMPT TO DEPRECIATE VALUABLE MINING PROPERTY.**—A client of ours recently purchased from our firm a certain number of shares in the East Llangynog Lead Mining Company (Limited), at £3 per share, together with some shares in Franco Consols Tin and Copper Mining Company (Limited), at £2 per share, these prices being estimated by hundreds of transactions. Subsequently, and before the purchase money was paid, he deemed it necessary (no doubt for his own information) to make enquiries relative to the value of these properties from certain dealers, including some of those who advertise weekly lists of prices of shares for sale, and who give the most fabulous quotations as the price of the shares. When the names of these parties were brought before us we were not at all surprised at anything emanating from such a source. We should be very sorry to allow the name of our firm to be placed in juxtaposition with those who are recognised only as the last notch in the tail of the mining fraternity. Nevertheless, our client's confidence was shaken; so much so, that he endeavoured to repudiate the transaction which he has since completed, telling us that he tried to secure the stock from those unprincipled parties, who are in the habit of depreciating valuable properties for an ulterior object—that of palming off upon the unwary and inexperienced, in which they are interested for profit.

The principle on which we based our business from the commencement we shall maintain to the end, viz.:—First, we advocate home mining. Secondly, those whom we select to advise shall be situated in a good mining district, whether in Wales, Devon, or Cornwall. Thirdly, they shall be free from debt, and superintended by sound, practical, and economical management. Fourthly, never to advise the purchase of shares in any mine unless it is returning mineral to the market. And we are confident that the investors who will be guided by our advice cannot lose much, but have every chance to gain.

We now strongly advise the purchase of East Llangynog at £3, Franco Consols at £2, and Terras Tin at £3.

WANTED TO PURCHASE: 500 shares in the Franco Consols Mine, at £2 per share.

Messrs. ENDAN AND CO., STOCK AND SHAREDEALERS, 85, GRACECHURCH STREET, LONDON, E.C.

**IMPORTANT TO MINERS.**

**WALKER'S PATENT STAMPS.**

ONE LARGE SET of fine 3-cwt. STAMPS, complete, for CRUSHING TIN, QUARTZ, &c., can be seen at—

12, JAMES STREET, OLD STREET, CITY ROAD.

Just published, price Half-a-crown.

**ON COLLIERY EXPLOSIONS,**

SOUTH WALES COAL FIELD, IN THE MERTHYR, ABERDARE, and RHONDDA VALLEYS.

With Map of the District, Explanatory Sections and Diagrams: Being a Paper read before the South Wales Institute of Engineers, by THOMAS JOSEPH, Mining Engineer, a Member of the Institute.

Methy Tyddil: FARRANT and FROST.

LONDON: SIMPKIN, MARSHALL, and CO.

Just ready.

**A HANDBOOK TO THE MINERALOGY OF CORNWALL AND DEVON,**

By J. H. COLLINS, F.G.S., Secretary to the Royal Cornwall Polytechnic Society, &c.

Price 6s.; free by post, 6s. 3d.

TRURO: HEARD and SONS. LONDON: LONGMANS and CO.

THE TIN MINES OF CORNWALL AND DEVON—THEIR PRESENT POSITION AND PROSPECTS.

By THOMAS SPARGO, Mining Engineer and Stock and Sharedealer, Graham House, London, E.C.

Price 6s., post free.

**MR. R. PERCY ROBERTS,**

FINANCIAL AGENT.

60, ENGLISH STREET, CARLISLE.

**THE EAST DOLCOATH TIN MINING COMPANY.**

Situate in the parish of Illogan, in the county of Cornwall.

Constituted upon the Cost Book System, with the power to register (if agreed upon by the first subscribers), under the Companies Acts, 1862 and 1867, by which the liability of the shareholders will be restricted to the amount payable on the shares subscribed for.

Capital £30,000, in 3000 Shares of £10 each.

First issue of 1000 shares at £2 each, to pay the purchase money for the property, and the preliminary expenses, and such shares are to rank in value with the remaining 2000 shares of £10 each.

Payment—£1 on application, and £4 on allotment.

The directors or committee of management to be appointed out of the body of the subscribing shareholders at the first meeting.

BANKERS—THE METROPOLITAN BANK, 75, Cornhill, London.

SOLICITORS—JOHN ROBERT CHIDLEY, Esq., 25, Old Jewry, London.

AUDITORS—Messrs. CROSDILL, SAFFERY and Co., 14, Old Jewry-chambers.

SECRETARY—MR. GEORGE W. SNELL.

**TEMPORARY OFFICES.**

3, CROWN-CHAMBERS, THREADNEEDLE-STREET, LONDON.

Full details of this important company will appear in next week's Journal; and the meantime every information can be obtained on application at the offices of the company, where the reports of Capt. Bryant, of Capt. Tonkin of Dolcoath Mine, and of Capt. John Nancarrow, can be inspected.

#### In Chancery.

**TO BE LET,** for such Term as may be agreed upon, from the 20th day of May, 1872, the COLLIERIES OF BALLYCASTLE, extending from the ancient church of Bonmahony to Fair Head eastward (about four miles Irish), and from the sea coast (three miles Irish) into the country southward, together with the IRON-STONE (BLACKBAND) under the two quarries of BALLYREAGHS, containing 419 acres statute measure, or thereabouts, and comprised within the said coal field.

For further particulars, apply to—

Messrs. TYRRELL AND STANUELL, Solicitors, 5, Dawson-street, Dublin; or

Messrs. ADAIR KELLY AND LLOYD, Solicitors, 25, Clare-street, Dublin; or to

WILLIAM MCLEES, Receiver, Ballycastle, co. Antrim.

Ballycastle, Sept. 27, 1871.

**TRYDDYN, FLINTSHIRE.**

**SALE OF VALUABLE COLLIERY LEASE, SHAMS OF COAL, ENGINES, WINDING APPARATUS, PLANT, AND MACHINERY.**

Situate at TRYDDYN, in the County of FLINT.

**MESSRS. CHURTON AND ELPHICK WILL SELL BY AUCTION,** at the Grosvenor Hotel, in the City of Chester, on Saturday, the 25th day of November, 1871, at Two for Three o'clock in the afternoon, in One Lot, subject to conditions to be then produced, all that the ESTATE and INTEREST of the lessees of and in all those SEAMS, VEINS, or BEDS OF COAL, called the "TWO YARD" and the "BRASSY," within and under the estates known as Tryddyn Lodge and Tryddyn Farm, in the parish of Mold, in the county of Flint, extending to about 80 statute acres.

And also all the very VALUABLE PLANT and MACHINERY, now being upon and about the said premises, comprising winding apparatus, with wire rope, frames, and stages; 70-horse power steam engine, with two boilers; blacksmiths' and carpenters' shops, 84 tramway trucks' tipping apparatus, tramway, weighing machine, office fittings and furniture, plant and machinery, complete.

The above colliery is connected by a tramway with the Coal Land branch of the Chester and Mold Railway, and the lessees' interest includes the right of user of such tramway, and the incline engine and rope thereupon, and the weighing machines belonging thereto.

The present lease will expire on the 1st of October, 1873, but arrangements have been made with the lessors by which a purchaser may obtain a renewal thereof, including two additional seams of coal, which have also been proved under the said estates.

Further particulars may be obtained on application to Mr. JOHN LEIGH, Solicitor, Brown-street, Manchester; to Messrs. DUNCAN, CAYLEY, and PRITCHARD, Solicitors, Chester; or to the Auctioneers, Chester and Whitechurch, Salop.

**TUESDAY, NOVEMBER 28th, at TWO O'CLOCK P.M.**

**VALUABLE MINE SETT, MACHINERY, AND PLANT,**

In the Parish of LANIVET, CORNWALL.

**TO BE SOLD, AT PUBLIC AUCTION,** on Tuesday, the 28th day of November, at Two o'clock in the afternoon, at the Account House, on the Mine, the very valuable MINING PROPERTY, known as

**WHEAL MARY LOUISA,**

Situate in the Parish of LANIVET, in the County of CORNWALL, together with the LEASES, MACHINERY, PLANT, and MATERIALS, in One Lot, as a going concern.

The MACHINERY and MATERIALS comprise ONE 20-inch double-acting ENGINE, as good as new, with BOILER, about 12 tons.

TWO STAMPS AXLES of 16 heads each, with lifters, cams, heads, braces, hoppers, &c., complete; flat-rods of round iron and wire rope; angle bolts, pulleys, stands, &c.; buddles, strips, trunks, chutes, &c.—in fact, a complete dressing floor, well laid out with sheds and every requirement; smiths' and miners' tools; a large quantity of timber, chain, and other articles in use on mines; also about 80 tons of coal; account-house furniture, miners' dial, &c.

The above property, which is situate in a very celebrated tin-bearing district, is held under a lease from Lord Roberts and others on the most favourable terms, and it is believed a very little further outlay will make it a permanent-paying concern. Everything on it is of the best possible quality, and in perfect working order.

To view, apply at the mine, which is about four miles from Lostwithiel, on the Cornwall Railway, and for further particulars to Mr. SAMUEL ABBOTT, Redruth; to Mr. T. ANGOVE, Camborne; or JOHN THOMAS, the Auctioneer, at The Glebe, Redruth.

Dated 6th November, 1871.

**FOR SALE, BY PUBLIC AUCTION,** on Tuesday, Nov. 28th instant, to commence at Ten o'clock in the forenoon, at PAR CONSOLS MINE, in the parish of ST. BLAZEY, CORNWALL, the undermentioned

**VALUABLE MINE MACHINERY AND MATERIALS, viz.:**

80 in. cylinder ENGINE, 10 ft. by 8 ft. 3 in. stroke, with three boilers, 11 tons each, and fittings.

ONE 72 in. direct-acting PUMPING ENGINE, 9 ft. stroke, and two boilers, 12 tons each.

ONE powerful STAMPS, driven by a pair of engines, 9 ft. stroke, and two boilers; a large quantity of useful brass.

ONE 24 in. WINDING ENGINE, 7 ft. stroke, two boilers and cage, suitable for stamping or dressing purposes.

ONE 18 in. ditto, with fly wheel and cage, and one boiler; 1 steam capstan; 1 horse machine, for drawing purposes; 1 water wheel, for round buddle; 1 saw mill; 1 copper ore crusher; patent separators; upwards of 200 pumps, various sizes, from 10 to 20 in. diameter; a quantity of pump rings, &c., &c.; 6 H. poles, from 15 to 20 in. diameter; 6 door poles, from 15 to 20 in. ditto; 6 plunger poles, from 14 to 20 in. diameter, with stuffing boxes, glands, and brass bushings; 16 working barrels of various sizes; windbores of different sizes; a large quantity of bucket prows and bushes; a large quantity of staples and glands; a large quantity of flat rope and other articles; capstans and shears; balance bolts, with castings, brasses, &c.; 5 1/2 in. flat ropes; horse whip ropes; several tons railroad saddles; several tram wagons; a large quantity of useful timber; a large quantity of useful iron; a large smiths' bellows and tools; a quantity of useful chain.

And a variety of other articles and effects in general use in a large mine.

The above may be inspected on application at the Counting-house; or further particulars obtained from WM. WEST, Esq., Tredenham House, St. Blazey; Mr. WILLIAM POLKINGHORNE, Woodlands, Par Station; Capt. FRANCIS FOCKEY, St. Blazey, of whom catalogues may be obtained at 6d. each; or of Mr. WILLIAM WERRY, Auctioneer, &c., St. Blazey.

Dated November 8th, 1871.

**CHILIAN COPPER MINES, AND MINING PROPERTY.**

**TO BE SOLD,** pursuant to an Order of the High Court of Chancery, made in a Cause of "WATERS v. WATERS," with the approbation of the Master of the Rolls, at the Auction Mart, Tokenhouse-yard, Lothbury, in the City of London, at Two o'clock precisely, on Tuesday, the 9th day of January, 1872, by Mr. ROBERT C. DRIVER (of the firm of Messrs. Driver, of Whitehall, London), the Auctioneer appointed by the said Judge to sell the same.

The WHOLE of the EXTENSIVE and RICH COPPER MINES, PARTS OF MINES, MINING PROPERTY AND MATERIALS, and FREEHOLD PROPERTIES, in the STILES and BUNESBESSEES carried on in connection with the said Mines, forming part of the Chilian Estate of Sampson Waters, late of Gyllyngdane, in the county of Cornwall, Esq., deceased. The Mines consist of—

1.—THE ENTIRETY of the SAN PEDRO MINE.

2.—TWO-THIRDS of the celebrated DESCUBRIDORA MINE, with the adjoining SETTS of SAN JUAN, CANCHAS, and SAN FRANCISCO.

3.—THREE-FOURTH PARTS of the COLORADO (SILVER) MINE.

4.—NINE FORTY EIGHTH PARTS of the JUANA (SILVER) MINE.

5.—THE ENTIRETY of the SANTA ELENA COPPER MINE.

6.—THE ENTIRETY of the CUBA COPPER MINE.

7.—THE ENTIRETY of the SAN ANTONIO MINE.

San Pedro Mine, situate about 60 miles from the port of Chancay, has given immense riches, but owing to a run a new shaft had to be sunk 122 fathoms from the surface, and is now communicated with the lode at this depth. The lode is composed of black and yellow sulphurets, of a produce of 50 per cent. for copper. The burrows are large, and will pay for working over, having water sufficient in the mine to do so. A good well of pure water is near to and belongs to the mine.

The Descubridora Mine has been working since 1859, and has yielded large profits from that date, and continues to do so. It is now down to the 94 fm. level, and has been rich from the surface. The ore is lengthening, the average width of the vein being from 30 to 80 feet, composed of yellow sulphurets. The burrows, by applying steam crushers, will yield large returns. Within the last few months two new steam-engines have been erected at a cost of £2000, and are now at work: these will increase the returns. The engines are one of 20-horse power for drawing, and one of 8-horse power for crusher. The mine is in thorough working order, and well stocked with materials, rails, jiggers, crushers, &c.

The adjoining sets of San Juan, Canchas, and San Francisco were acquired for the purpose of securing the ground in all directions round the Descubridora Mine, and they have since been worked on a limited scale. The Canchas is making a small profit. San Juan and San Francisco are being worked at a trifling loss. The other mines above mentioned are promising concerns.

Remunerative shops and stores are attached to the mines, and are carried on in conjunction with them.

The other property which will be offered for sale consists of an entirety of FREEHOLD DWELLING HOUSES, STORES, SHOPS, WATERING PLACE, TIMBER MATERIALS, ORE FLOORS, and other property (including a large condensing apparatus), situated at Chancay, Chancayito, Copapo, and Tres Puntas; the Quinchigui establishment, or watering place, with the dwelling house, store yard, carts, and mules; two-thirds of the Vega establishment, with the yards, houses, shops, and stores; two-thirds of the dwelling-houses and yards, store rooms, ore floor, the mole, and premises in the Pan de Azucar; seven-eighths of the watering place at Tres Puntas, and one moiety of the watering place at Punta Negra.

Plans of the San Pedro and Descubridora Mines, and printed particulars and conditions of sale may be obtained of Messrs. PRICE, BOLTON, and FILLER, of Lincoln's Inn, London; of Mr. S. T. G. DOWLING, Solicitor, Redruth, Cornwall; or of Mr. THOMAS WAITT, the Receiver and Manager at the Mines, Chili; of Messrs. FRESHFIELDS, Solicitors, Bank-buildings, London; or of Mr. W. C. SMITH, 48, Lincoln's Inn-fields, London; or of Mr. CHARLES NORTON, Solicitor, Swansea; or of Messrs. ROSCOPPE and SONS, Solicitors, Fenchurch; and of Messrs. COODE, KINGDOM, and COTTON, Solicitors, Bedford-row, London; and of Messrs. DRIVER, Surveyors, Land Agents, and Auctioneers, 4, Whitehall, London.

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PRICE, BOLTON, AND FILLER, Lincoln's Inn (Agents for S. T. G. Dowling, Redruth, Cornwall, Plainfield's Solicitor).

Dated 2nd August, 1871.

#### Sale of Gunpowder at Portsmouth.

##### WAR OFFICE.

5, New Street, Spring Gardens, November 8, 1871.



**NOTICE IS HEREBY GIVEN,** that the Secretary of State for War is prepared to RECEIVE, on or before TUESDAY, the 21st instant, TENDERS for the PURCHASE of

No. 3 SHELL POWDER.

Tenders must be made upon the proper forms, which may be obtained on application at this office, or to the Control Officer, at the Gun Wharf, Portsmouth. Samples may be had at Portsmouth.

THOMAS HOWELL, Director of Contracts.

##### LEICESTERSHIRE.

**TO BE SOLD, BY PRIVATE TREATY, a FREEHOLD RESIDENTIAL ESTATE OF THREE HUNDRED ACRES OF ARABLE and PASTURE LAND,** together with the substantially modern built FAMILY MANSION, known as Lindridge House.

The house is approached by an entrance lodge through the park, and contains 4 reception rooms and billiard room (with the outer and inner lantern halls, are heated with hot water), 5 water closets, laboratory, 19 bed rooms and bath room, including servants' housekeepers' room, servants' hall, butler's pantry, and good offices and cellars. Hard, soft, and hot water are laid on throughout.

Gas works at the Farm supply the house and the stabling, where are standings for eight horses, large coach house, saddle room, piggeries, cow and fowl house, &c.

The flower and kitchen garden and shrubberies contain three acres, and also a gardener's house.

The farmyards and buildings are one quarter of a mile distant, of recent erection, and are covered in on the modern principle. The tenant's house, adjoining, has 2 sitting and 6 bed rooms, besides the usual offices for a dairy farm. There is good shooting on the estate, and good trout fishing in the stream, which runs through it—1500 additional acres of shooting might be rented, which are strictly prospective. There is also a hind's house and barn adjoining, and two other cottages.

The estate is supposed to contain valuable beds of coal.

The following is an extract from the report of Mr. J. T. Woodhouse, of Derby, Mining Engineer:—"As coal has been found, and is worked both at Bagworth and Nailstone, and lying pretty evenly, there is every reason to suppose that it extends under your property."

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The BOARD OF INLAND REVENUE give notice that the will shortly issue to the public ADHESIVE STAMPS for denoting the ad valorem duties PAYABLE on BILLS OF EXCHANGE drawn out of the United Kingdom, of a different colour to those now in use.

The colour of the stamps for the various rates of duty in Shillings will be Green instead of Purple, and those for the duties in Pounds will be Purple instead of Green.

The alteration, which is limited to these two series, will not interfere with the continued use of the present stamps.

By order of the Board, WM. LOMAS, Secretary.

Inland Revenue, Somerset House, 14th November, 1871.

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PROVIDE AGAINST ACCIDENTS OF ALL KINDS  
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**RAILWAY PASSENGERS' ASSURANCE COMPANY.**  
An annual payment of £3 to £6 ss. insures £1000 at death, or an allowance  
the rate of £6 per week for injury.  
£250,000 have been paid as compensation—  
One out of every 12 Annual Policy Holders becoming a claimant each year.  
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WILLIAM J. VIAN, Secretary.



# THE HOWARD SAFETY BOILER,

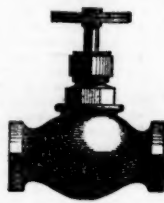
For STATIONARY and MARINE ENGINES, has the following advantages:—

**SAFETY; NO RISK from DANGEROUS EXPLOSION; HIGH-PRESSURE STEAM, with ECONOMY OF FUEL; perfect circulation, and ready means of removing sediment.**  
Saving of cost and time in repairs; portability, and, for export, great saving in freight.

Patentees and Manufacturers: J. and F. HOWARD, Britannia Iron Works, Bedford.  
LONDON OFFICE: 4, CHEAPSIDE (three doors from St. Paul's).



**IMPROVED VALVES AND TAPS,**  
FOR WATER, STEAM, GAS, ETC.,  
**Made by MATHER AND PLATT,**  
SALFORD IRONWORKS, MANCHESTER.



ILLUSTRATED SHEET, WITH PRICES, CAN BE HAD ON APPLICATION.

PRIZE MEDALS—PARIS, 1867; HAVRE, 1868; HIGHLAND SOCIETY, 1870.

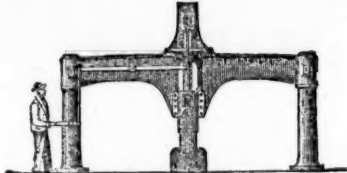
## B. & S. MASSEY, OPENSHAW CANAL IRONWORKS, MANCHESTER.



Special Steam Stamp.



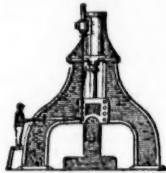
Hammer for General Smith Work, &c.



Hammer for Wheel-making, Copper Work, &c.



Hammer for General Smith Work, &c.



Hammer for Heavy Forgings.

**PATENTERS AND MAKERS OF DOUBLE AND SINGLE-ACTING STEAM HAMMERS** of all sizes, from 17 lbs. to 20 tons, with Self-acting or Hand Motions, in either case giving a perfectly DEAD-BLOW, while the former may be worked by hand when desired. Large Hammers, with Improved Framing, in Cast or Wrought Iron. Small Hammers working up to 500 blows per minute, in some cases being worked by the foot of the smith, and not requiring any separate driver.

**SPECIAL STEAM STAMPS**, of great importance for Smith Work, Bolt-making, Punching, Bending, &c.  
Hammers for Engineers, Machinists, Shipbuilders, Steel Tilters, Millwrights, Copper-smiths, Railway Carriage and Wagon Builders, Colliery Proprietors, Ship Smiths, Bolt Makers, Cutlers, File Makers, Spindle and Flyer Makers, Spade Makers, Locomotive and other Wheel Makers, &c.; also for use in Repairing Smithies of Mills and Works of all kinds, for Straightening Bars, Bending Cranks, Breaking Pig-Iron, &c.

STEAM HAMMERS AND STEAM STAMPS MAY ALWAYS BE SEEN AT WORK.

## XYLIC POWDER.

THE XYLIC POWDER WILL NOT EXPLODE BY FRICTION, and requires about 400° degrees of heat to explode it. It is remarkable for its safety, and may be carried by rail or vessel as safely as any other material. When ignited in an unconfined state, it will simply burn away, and do no more damage than a bundle of wood shavings. The great advantage which the XYLIC POWDER has over gunpowder is,—it can be made much cheaper, is only about one-fourth the weight, and is nearly six times the strength as hitherto required for blasting shells and torpedoes. It is always uniform in its effects, and 20 grains are equal to 75 grains, or 2½ drachms, of the best gunpowder. It has no offensive smell, residuum, or smoke; it will not foul or heat a gun, and the recoil is so small that it is scarcely felt.

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## HARDING'S FLEXIBLE ROOFING,

The Best and Cheapest Covering for Houses, Sheds, Summer-houses, Verandahs, Farm and other Buildings, &c.

Suitable for all climates, and adopted by the English and Foreign Governments, Railway Companies, Metropolitan Board of Works, &c. Used at the Woolwich Arsenal, Chatham, Haulbowline, Malta, Deptford, and other Dockyards. Awarded the FIRST PRIZE SILVER MEDAL, International Exhibition, 1869, for its cheapness and superiority to Asphaltic Roofing Felt, although the price was then 50 per cent. higher than at present, and is proved to be a much more durable, efficient, and weather-tight roofing than Corrugated Iron, at one-third the cost, and can be most easily fixed by any unpractised person.

### ONE PENNY PER SQUARE FOOT.

Or 23s. per roll of 25 yards long, by 44 inches wide.  
Each roll containing 276 square feet. Made any width and length to order, and especially manufactured for the Tropics. Dressing 2s. 6d. per gallon; zinc nails, 5d. per lb.; 1½ gallons dressing and 3½ lbs. zinc nails required for each roll of roofing. Directions for fitting sent with every roll. Delivered free on rail or boat in London. Samples on application.

Report on the merits of HARDING'S FLEXIBLE ROOFING after its exclusive adoption at the Woolwich Arsenal, Chatham, Haulbowline, Deptford, and Malta Dockyards for the last six years:—

No. 298.  
"Sir,—In reply to your letter of the 20th ultimo, asking for a report on the merits of your Flexible Roofing, I have to inform you that where it has been used it has so far satisfactorily answered the purposes for which it was required.

"Admiralty, Spring-garden-terrace, S.W., April 4, 1871.  
I am, Sir, your obedient servant.

ANDREW CLARKE,  
Lieut.-Col. R. Eng., Director of Architectural and Engineering Works, Admiralty.

JAMES HARDING, SOLE MANUFACTURER, 20, NICHOLAS LANE, CANNON STREET, LONDON, E.C.

Depôts—Paris: 12, Boulevard Poissonnière. Hamburg: 57, Rödelsmarkt.  
Agents—Dresden: Hugo Schubert and Co. Amsterdam: Perry and Co. Liverpool: Messrs. Archibald Wallace and Co., Royal Insurance-buildings, North John-street. Birmingham: Messrs. Taylor and Cook, 25, Union-street.

## CHAS. PRICE AND CO.'S RANGOON ENGINE OIL,

AS SUPPLIED TO H.M. DOCKYARDS AND FLEET.



THIS OIL is suitable to every kind of Machinery. As a lubricant it is equal to the best Sperm or Lard Oil, while it possesses the great advantage of being entirely free from any principle which will corrode the metal bearings.

For particular kinds of Machinery, the Oil may be specially prepared of a consistency and character adapted to the nature of the work to be done.

"Chemical Laboratory, 7, Printing House-square, Blackfriars, April, 1869,  
"I herewith certify that the Rangoon Engine Oil, manufactured by Messrs. Chas. Price and Co., is free from any material which can produce corrosion of the metal work of machinery. It is indeed calculated to protect metallic surfaces from oxidation.

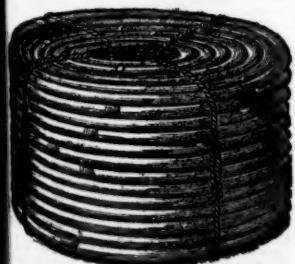
"The lubricating power of this oil is equal to Sperm or Lard Oil.

"T. W. KEATES, F.C.S., &c. &c.  
Every parcel of the Oil sent from the work bears the Trade Mark of the Firm.

LONDON: CASTLE BAYNARD, UPPER THAMES STREET.

WORKS: MILLWALL, POPLAR; and ERITH, KENT.

## PATENT SELF-LUBRICATIVE STEAM & HYDRAULIC ENGINE PACKING.



This Packing is invaluable to all Users of Steam-Power; it supersedes anything of the kind ever invented; it is now in use in all the Chief Railways and First Firms in this Country and Abroad, and is

THE ONLY PACKING THAT WORKS WITHOUT OIL OR GREASE,  
Does not char, is pilable, keeps the rods

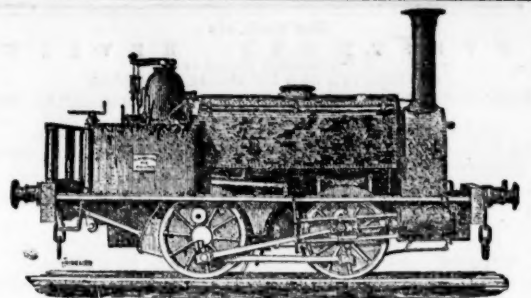
COOL, BRIGHT, AND CLEAN,  
And lasts longer than any other, thereby

SAVING FULLY 200 PER CENT.  
To the User, in oil, labour, and material.

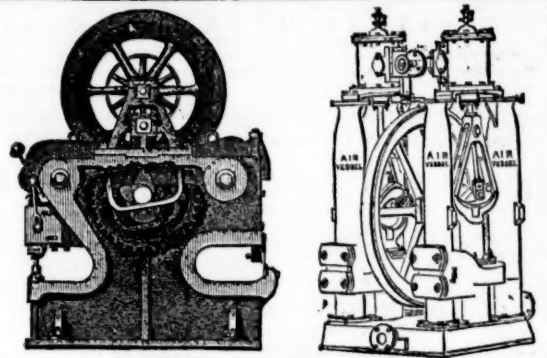
Can be had only from the Agents throughout the country, appointed by

THE SOLE LICENSEES,  
[FOR THE LUBRICATIVE PACKING COMPANY],

**HENRY HOUSE AND CO.,**  
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**TANK LOCOMOTIVES,**  
FOR SALE OR HIRE.  
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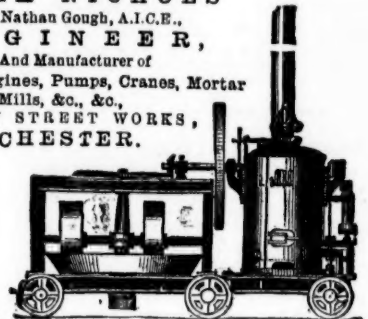


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MAKER OF  
STEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS  
BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING  
MACHINES, PATENTEE OF THE DOUBLE CAM LEVER  
PUNCHING MACHINE, BAR SHEARS, AND RAIL  
PUNCHING MACHINES,  
**EGERTON STREET IRON WORKS,**  
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And Manufacturer of  
Portable Engines, Pumps, Cranes, Mortar  
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For Excellence  
and Practical Success  
of Engines



Represented by  
Model exhibited by  
this Firm.

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ENGINEERS AND GENERAL MERCHANTS,  
HAYLE, CORNWALL,  
AND HAYLE FOUNDRY WHARF, NINE ELMS, LONDON,  
CITY OFFICES (GRESHAM HOUSE), 23½, OLD BROAD STREET,  
MANUFACTURERS OF  
PUMPING and other LAND ENGINES and MARINE STEAM ENGINES of  
the largest kind in use, SUGAR MACHINERY, MILLWORK, MINING  
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SHIPBUILDERS IN WOOD AND IRON.

**SECONDHAND MINING MACHINERY FOR SALE.**  
In First-Rate Condition, at Moderate Prices.  
PUMPING ENGINES; WINDING ENGINES; STAMPING ENGINES;  
STEAM CAPSTANS; and CRUSHERS of various sizes. BOILERS,  
PITWORK of all descriptions, and all kinds of MATERIALS required  
for MINING PURPOSES.

**THE PATENT PNEUMATIC STAMPS**  
May be SEEN AT WORK at HAYLE FOUNDRY WHARF, NINE ELMS,  
by previous application at either of the above addresses.



By a special method of preparation, this leather is made solid, perfectly close in texture, and impermeable to water; it has, therefore, all the qualifications essential for pump buckets, and is the most durable material of which they can be made. It may be had of all dealers in leather, and of

**I. AND T. HEPBURN AND SONS,**  
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**TO NERVOUS SUFFERERS—READ AND JUDGE FOR YOURSELVES.**  
**DR. BARNES** has just published 20,000 copies of the "SECRET FRIEND," a most valuable book to young men on the Treatment and Cure of NERVOUS and PHYSICAL DEBILITY, LOSS OF MEMORY, DIMINUTION OF SIGHT, LASSITUDE, PAINS in the BACK, LOCAL WEAKNESS, DEPRESSION OF SPIRITS, &c., with plain directions for perfect restoration to health and vigour. Sent post free on receipt of two stamps. Address, Dr. J. A. BARNES, 1, Lonsdale-square, Barnsbury, London, N.

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The most important fact that these alarming complaints may easily be removed WITHOUT MEDICINE  
is here clearly demonstrated, and the entirely new and highly successful treatment, as adopted by the author, fully explained, by means of which EVERYONE IS ENABLED TO CURE HIMSELF Perfectly, and at the least possible cost.  
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A Monthly Record of  
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N.B.—Investors in Foreign and Colonial Mines will find in this Review information not otherwise obtainable.

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BEDFORD FOUNDRY, TAVISTOCK,  
CONDUCTED BY  
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MINING ENGINEER, AGENT, AND SURVEYOR.  
Who undertakes the entire local Management of Mines, including Drilling,  
making accurate Underground Communications and Plans,  
at a stipulated salary.

Mines Inspected and faithfully Reported on, orders for which purpose should be made for Mr. Collo, or his Agent.  
Promoters of New Mining Enterprises (which will bear the strictest scrutiny) rendered every assistance.  
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MINING AGENT, ENGINEER, AND SURVEYOR.  
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For terms, apply to Capt. ABRAHAM FRANCIS, as above.

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4, ROYAL EXCHANGE AVENUE, E.C.  
Established in 1868.  
The fullest and reliable information relative to Australian Gold Mine Investments can always be obtained from the undersigned.  
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(Late Editor of the "Mining Record," Melbourne).

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Undertake the PROMPT EXECUTION of all ORDERS for the PURCHASE of BRAZILIAN PRODUCE, and the PURCHASE of GOODS in all European markets.  
The sale in Brazil, South America, England, India, and Spain of all commodities of produce, goods, earthenware, machinery, railway and telegraph plant, galvanised ironwork, agricultural implements of all kinds, cement, coals, &c.  
Furnishes information and assistance to all those desirous of emigrating to Brazil, and contracts for the settlement of emigrants in any part of the Empire.  
Has several landed estates in Brazil to dispose of, suitable for capitalists and emigrants.  
The Agency also undertakes the collection of bills payable at any part of the Empire—realisation and adjustment of all claims.  
Office Hours: Ten till Four.  
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**BICKFORD'S PATENT SAFETY FUSE,**  
FOR CONVEYING FIRE TO THE BLASTING ROCKS, &c.  
Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1862; at the "INTERNATIONAL EXHIBITION" of 1867; at the "IMPERIAL EXHIBITION" held in Paris, 1867; at the "UNIVERSAL EXHIBITION" in Paris, 1867; and at the "GREAT INDUSTRIAL EXHIBITION," at Atlanta, in 1869.

**BICKFORD, SMITH AND CO.,**  
OF TUCKINGMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—  
EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.

**JOHN BOURNE AND CO.,**  
ENGINEERS, SHIPBUILDERS, AND CONTRACTORS,  
BLOWING ENGINES, WINDING ENGINES,  
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PUMPING ENGINES, STEAM BOILERS.  
66, MARK LANE, LONDON.

**HOWATSON'S PATENT**  
PUDDLING AND HEATING FURNACES  
Are SAVING at the LEADING IRONWORKS in the KINGDOM TWENTY-FIVE PER CENT. OF FUEL, and a LARGE PERCENTAGE OF IRON.  
The invention can be applied to the ordinary furnaces at a cost of £5.  
Apply for Scotland to the Patentee—  
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35, PRINCESS STREET, MANCHESTER.

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Shares.	Company.	Paid.	Price.
400	John Abbot and Co. [L.]	£ 75 0 0	20 15 dis.
100	Ashbury Co. [L.]	90 0 0	30 25 dis.
50	Blaenavon Iron and Steel Co. [L.]	7 10 0	—
100	Bolckow, Vaughan, and Co. [L.]	30 0 0	35 37½ pm.
100	Brown, John, and Co. [L.]	70 0 0	11 12 pm.
100	Cartworth Hematite Iron Company	100 0 0	—
10	Consett Iron Co. [L.]	7 10 0	8 6½ pm.
100	Cammell and Co. [L.]	80 0 0	8 7½ pm.
33	Edw Vale Co. [L.]	27 10 0	4½ 4½ dis.
6	Fairbairn Engineering	5 0 0	¾ ¾ pm.
20	General Mining Association [L.]	20 0 0	7 9
15	Hopkins, Gilkes, and Co. [L.]	10 0 0	par. 1 pm.
10	Ironmasters' Company [L.]	10 0 0	—
10	Midland Iron Co. [L.]	10 0 0	6 8 pm.
2½	Messrs Steel and Iron Co. [L.]	31 10 0	—
4	Myndy Iron Ore [L.]	3 10 0	2½ 2 dis.
100	Nantyglo and Blaitha (perp. s. p. c. pref.)	25 0 0	6 4 dis.
1	Nerbudda Coal and Iron	0 7 0	—
35	Palmer's Shipbuilding and Iron Co. [L.]	25 0 0	3¼ 3¼ pm.
35	Palmer's Shipbuilding and Iron Co. [L.]	25 0 0	3¼ 3¼ pm.
100	Parkgate Iron Co. [L.]	65 0 0	10 12 pm.
20	Patent Shaft and Axletree Co. [L.]	10 0 0	6½ 6½ pm.
40	Rhymney Iron Co. [L.]	20 0 0	17 15 dis.
15	Shotts Iron Co.	15 0 0	—
80	Sheepbridge Iron and Coal Co. [L.]	80 0 0	15 17 dis.
100	Staveley Iron and Coal Co. [L.]	60 0 0	44 46 pm.
100	Staveley Iron and Coal Co. [L.]	10 0 0	7½ 7½ pm.
100	Thames Iron Company	10 0 0	9 11 pm.
75	Thames Iron and Steel	5 0 0	—
100	Vancouver Coal [L.]	0 0 0	1 ½ dis.
10	Van Iron Ore [L.]	10 0 0	—
80	Welsh Ironworks Co. [L.]	80 0 0	—
10	Whitehaven Iron Mines [L.]	4 0 0	—
100	Wigan Coal and Iron Co. [L.]	100 0 0	12 10 dis.
75	Wigan Coal and Iron Co. [L.]	75 0 0	12 10 dis.

## THE MINING SHARE LIST

BRITISH DIVIDEND MINES.									
Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.	Shares.	Mines.
30000	Alderley Edge, Cheshire	1 0 0	1½	1½	1 11	0 2	0 2	0 2	0 2
20000	Alcon Caelan, s. Cardig.	1 0 0	—	—	0 2 0	0 1	0 1	0 1	0 1
4000	Bacallack, s. St. Just	1 0 0	—	—	0 2 0	0 1	0 1	0 1	0 1
200	Batallack, s. St. Just	1 0 0	240	200 220	608 15 0	2 13	0 1	0 1	0 1
50000	Bronkwood, s. Cardigan	100 0 0	105	102 107	108 0 0	2 0	0 1	0 1	0 1
4000	Brookwood, s. Buckfastleigh	1 16 0	—	—	1 2 0	0 2	0 2	0 2	0 2
6400	Cashwell, s. Cumberland	2 10 0	—	—	0 18 0	0 3	0 3	0 3	0 3
6000	Castle-an-Dinas, s. St. Columb.	2 0 0	—	—	0 2 0	0 2	0 2	0 2	0 2
1000	Carn Brea, s. t. Illogan	35 0 0	150	147½ 152½	252 10 0	2 0	0 2	0 2	0 2
2450	Cook's Kitchen, s. Illogan	19 14 0	35	59 40	7 14 0	0 17	0 6	0 6	0 6
125	Cwm Erwin, s. Cardiganshire	7 10 0	—	—	31 13 0	0 2	0 2	0 2	0 2
280	Cwmystyth, s. Cardiganshire	60 0 0	—	—	394 10 0	0 2	0 2	0 2	0 2
280	Darwent Mines, s. Durham	300 0 0	—	—	177 0 0	2 10	0 1	0 1	0 1
1094	Devon Gt. Consols, s. Tavistock	1 0 0	105	100 105	1183 0 0	4 0	0 5	0 5	0 5
656	Ding Dong, s. Gwilt	49 14 0	—	—	7 10 0	0 15	0 8	0 8	0 8
1432	Dolcoath, s. t. Carnarvon	32 4 0	225	220 230	281 2 6	3 10	0 0	0 0	0 0
17800	Drake Walla, s. Calstock	3 10 0	—	—	1 3 0	0 1	0 1	0 1	0 1
6144	East Cardigan, s. St. Cleer	2 14 0	—	—	14 14 0	0 2	0 2	0 2	0 2
300	East Darren, s. Cardiganshire	32 0 0	—	—	231 10 0	0 1	0 1	0 1	0 1
6400	East Pool, s. t. Pool, Illogan	0 9 0	—	—	12 1 3	0 2	0 2	0 2	0 2
1906	East Wheel Lovell, s. Wernon	2 0 0	14	12 13	12 8 6	0 12	0 8	0 8	0 8
2800	Foxdale, s. t. Man	25 0 0	—	—	79 5 6	0 15	0 8	0 8	0 8
6000	Frank Mills, s. t. Man	3 14 0	—	—	4 8 0	0 2	0 2	0 2	0 2
15000	Frank Mills, s. t. Man	4 0 0	15½	14½ 15½	14 9 0	0 6	0 6	0 6	0 6
3000	Great Northern Manganese	5 0 0	—	—	—	5 p.c.	Feb. 1869	—	—
5908	Great Wheel Vor, s. t. Helston	40 0 0	11½	11½ 11½	15 12 0	0 3	0 6	0 6	0 6
10240	Guanalake (Clitters), s. t. c.	4 12 0	—	—	0 2 0	0 1	0 1	0 1	0 1
1024	Herodafot, s. t. near Liskeard	1 0 0	43	41 43	28 10 0	0 10	0 0	0 0	0 0
28000	Killaloe, s. Tipperary	1 0 0	—	—	0 2 11½	0 0	0 9½	0 9½	0 9½
165	Levant, s. t. St. Just	10 8 1	—	—	101 0 0	0 2	0 6	0 6	0 6
400	Lisburne, s. t. Cardiganshire	18 15 0	—	—	243 13 0	0 2	0 0	0 0	0 0
3000	Marke Valley, s. t. Wernon	5 0 0	—	—	45 15 8	0 18	0 8	0 8	0 8
3000	Miners Mining Co., s. t. c.	7 0 0	—	—	0 4 6½	0 2	1 July 1870	—	—
4100	Miners Mining Co., s. t. c.	5 0 0	4½	4 ½	0 10 0	0 2	0 6	0 6	0 6
12000	North Hendre, s. t. Wales	2 10 0	—	—	0 1 3	0 1	0 3	0 3	0 3
2000	North Levant, s. t. St. Just	10 12 0	16	15 16	3 5 0	0 15	0 8	0 8	0 8
5610	North Wheel Crofty, s. t. Illogan	3 11 3	—	—	0 6 6	0 1	0 6	0 6	0 6
256	Pendarras United, s. t. Camb.	86 0 0	50	52 54	21 0 0	0 3	0 8	0 8	0 8
5000	Penhalls, s. t. Agnes	3 0 0	—	—	47 12 0	0 2	0 8	0 8	0 8
600	Phoenix, s. t. Linkinhorne	50 0 0	—	—	0 17 6	0 10	0 8	0 8	0 8
1772	Pierro, s. t. Agnes	15 0 0	—	—	0 10 0	0 10	0 8	0 8	0 8
2000	Police, s. t. Gwennap	0 12 0	1	25 27	109 12 6	0 10	0 8	0 8	0 8
12800	Princes, s. t. t. Lelant	10 6 7	26	25 27	0 2 0	0 1	0 8	0 8	0 8
15000	Queen, s. t. Calstock	0 10 0	—	—	0 2 0	0 1	0 8	0 8	0 8
12000	Roman Gravel, s. t. Salop	7 10 0	18	17 17½	0 5 0	0 5	0 8	0 8	0 8
5869	Rosewall Hill, s. t. Ransom	4 0 0	—	—	0 14 6	0 1	0 6	0 6	0 6
512	South Cardigan, s. t. St. Cleer	1 5 0	170	155 175	671 10 0	3 0	0 8	0 8	0 8
6128	South Condurrow, s. t. c. Camborne	5 5 6	9	8½ 9	1 2 6	0 7	0 6	0 6	0 6
6000	South Darren, s. t. Cardigan	3 6 0	35	30 31	1 6 0	0 1	0 6	0 6	0 6
927	South Wh. Crofty, s. t. Illogan	24 10 10	60	57½ 60	374 18 0	0 10	0 8	0 8	0 8
496	So. Wh. Frances, s. t. St. Just	36 17 9	—	—	16 15 0	0 1	0 6	0 6	0 6
242	Spearhead, s. t. St. Just	10 15 0	—	—	0 10 0	0 10	0 8	0 8	0 8
8771	St. Just Amalgamated, s. t. c.	8 10 0	—	—	0 5 0	0 2	0 6	0 6	0 6
12000	Tankerville, s. t. Salop	6 0 0	17	16 16½	12 0 0	0 6	0 6	0 6	0 6
6000	Tincroft, s. t. Pool, Illogan	9 0 0	62	61 63	32 13 6	0 15	0 8	0 8	0 8
4000	Trunpall, s. t. Helston	5 15 0	17	17 18	7 11 0	0 19	0 8	0 8	0 8
15000	Van, s. t. Llanidloes	4 0 0	62	60 62	5 6 0	0 12	0 8	0 8	0 8
3000	Wh. Chiverton, s. t. Perranzabuloe	10 0 0	20	23 20	7 6 0	0 1	0 6	0 6	0 6
2048	West Wheel Frances, s. t. Illogan	28 18 0	30	28 30	7 6 0	0 19	0 8	0 8	0 8
400	W. Wheel Seton, s. t. Camborne	47 0 0	140	130 140	681 10 0	3 10	0 8	0 8	0 8
12288	Wheel Arthur, s. t. Illogan	1 2 6	120	107½ 112½	684 0 0	1 10	0 8	0 8	0 8
512	Wheel Basset, s. t. Illogan	11 10 0	9	9½ 10½	0 2 0	0 2	0 8	0 8	0 8
512	Wheel Jane, s. t. Kea	10 16 0	52	51 53	34 10 0	0 1	0 8	0 8	0 8
4395	Wheel Kitty, s. t. Agnes	5 4 6	7	13 14 x. d.	7 8 0	0 10	0 8	0 8	0 8
1024	Wheel Kitty, s. t. t. Lelant	3 10 0	7	16 17	13 17 6	0 8	0 8	0 8	0 8
896	Wheel Margaret, s. t. t. Lelant	13 17 6	10	9 10	80 7 6	0 12	0 8	0 8	0 8
1024	Wheel Mary Ann, s. t. Menheniot	10 0 0	—	—	72 17 6	0 10	0 8	0 8	0 8
1000	Wh. Mary Hutchins, s. t. t. c.	2 12 6	—	—	1 1 0	0 7	0 6	0 6	0 6
80	Wh. Owe, s. t. St. Just	70 0 0	—	—	490 0 0	0 2	0 1	0 1	0 1
12000	Wheel Russell, s. t. Tavistock	1 0 0	—	—	0 2 0	0 1	0 8	0 8	0 8
4096	Wheel Uny, s. t. Redruth	10 14 6	24	23 24	0 15 0	0 4	0 8	0 8	0 8
71000	Wicklow, s. t. t. Wicklow	2 10 0	9	8½ 9½	50 2 6	0 2	0 8	0 8	0 8

FOREIGN DIVIDEND MINES.									
Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.	Shares.	Mines.
35000	Almaden, s. Spain*	1 0 0	2	1½ 2	0 16 9	0 1	0 8	0 8	Sept. 1871
130000	Almaden & Tinto Consolidated	1 0 0	1	¾ 1½	0 2 0	0 1	0 8	0 8	June 1871
20000	Australian, s. South Australia	7 7 6	—	—	0 2 6	0 0	0 8	0 8	Sept. 1871
18000	Cape Copper Mining*	7 0 0	14	13½ 14½	6 7 6	0 10	0 8	0 8	Apr. 1871
30000	Central American Association*	0 15 0	—	—	0 6 0	0 1	0 8	0 8	July 1869
21000	Colorado Terrible, s. Colorado*	5 0 0	5	4½ 5½	0 8 0	0 2	0 8	0 8	Oct. 1871
76162	Don Pedro North del Rey*	0 14 0	3½	3½ 3½	2 3 0	0 4	0 8	0 8	Mar. 1870
22500	Eberhardt & Aurora, s. Nevada*	10 0 0	20	16 17	1 19 0	0 1	0 8	0 8	July 1871
70000	English and Australian, s. t. c.	2 10 0	3	2½ 3	2 3 0	0 3	0 8	0 8	Feb. 1869
25000	Fortuna, s. Spain*	2 0 0	3	2½ 3	3 8 0	0 3	0 8	0 8	Sept. 1871
50000	Kapunda Mining Co., Austray.	1 3 0	3½	3½ 3½	13 13 0	0 6	0 8	0 8	Nov. 1868
15000	Linares, s. Spain*	3 0 0	3½	3½ 3½	10 percent.	0 6	0 8	0 8	Sept. 1871
50000	Panuelletto, s. Chile	3 0 0	3½	3½ 3½	10 percent.	0 6	0 8	0 8	Sept. 1871
100000	Pontbhead, s. t. France	20 0 0	18	16 19	9 8 0	0 11	0 8	0 8	July 1871
100000	Port Phillip, s. t. Clunes*	1 0 0	1½	¾ 1½	1 7 0	0 1	0 8	0 8	June 1871
12000	Scottish Australian Min. Co., s.	1 0 0	—	—	6 percent.	0 6	0 8	0 8	Apr. 1871
112500	Sierra Buttes, s. California*	3 0 0	5	4½ 5½	0 8 0	0 2	0 8	0 8	Sept. 1871
60000	South Aurora, s. Nevada*	5 0 0	2½	2½ 2½	0 12 0	0 5	0 8	0 8	June 1871
11000	St. John del Rey, Brazil*	16 0 0	52	50 52	81 10 0	4 5	0 8	0 8	Dec. 1867
16000	Sweetland Creek, s. California*	4 0 0	3	2½ 3½	1 0 0	0 4	0 8	0 8	Aug. 1871